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ABSTRACT

Designed for use by professional staff development personnel with pre-service and inservice educational personnel, this training manual was developed to train personnel to implement elementary school career education programs. This manual is divided into twelve chapters. The first chapter provides an overview of the Project FOCUS Manual. The second chapter provides a general introduction to career education. Chapter 3 describes eight elements of career education (self-awareness, career awareness, appreciations and attitudes, educational awareness, economic awareness, decision making skills, skill awareness and beginning competence, and employability skills). Chapter 4 maps out the relationship of career education to the school curriculum. Chapter 5 presents strategies for infusing career awareness into the school curriculum. Chapter 6 discusses role-playing as an instructional strategy. Guidelines for developing learning activity centers for career awareness are presented in chapter 7. Chapter 8 explains how to use community resources for career education. Chapter 9 provides guidelines for preparing career education instructional units. Evaluating career education materials is covered in chapter 10. Chapter 11 addresses the role and function of school personnel in career education. Finally, chapter 12 provides information and resource materials regarding the evaluation of Project FOCUS. (BM)

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PROJECT FOCUS

Methods and Materials for Training Career Educators

FINAL REPORT

VOLUME II

TRAINING MANUAL

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ACKNOWLEDGEMENTS

Many funded projects, when reviewed in retrospect, appear significantly different from their initial proposal or statement of intent. This is typically a function of the environmental constraints surrounding funded projects, and the realities encountered in their implementation.

Project FOCUS is one of those relatively rare projects that was implemented as initially planned and proposed. Furthermore, the research results support its hypotheses, and provide solid evidence of success.

Success does not occur by chance. Indeed, many individuals must support and nurture an effort for it to achieve its goals. The staff of Project Focus wishes to take the opportunity of this brief section to acknowledge those individuals whose contributions have significantly impacted on the success of this program.

The Office of Career Education, U. S. Office of Education, provided continual guidance and support for this project. Special recognition is acknowledged to Dr. Kenneth B. Hoyt, whose efforts have served as an inspiration for the entire career education movement. Gerald W. Elbers, who served as the Project Officer, also provided a steady hand and support in nurturing the project through the bureaucratic maze known as "Washington."

Within Boston University, the two Deans of the School of Education during the course of this project are cited for their efforts in helping the internal mechanism of the university play a supportive and responsive role. Thanks are expressed to Deans Robert R. Dentler and Paul B. Warren.

Field-based projects cannot succeed without the support of the field. Four school systems provided the use of their facilities and their faculty for Project FOCUS. Special recognition and thanks are due to the Barnstable, Boston, Brookline, and Stoughton, Massachusetts Public Schools.

There were four instructors who conducted the actual field test of the training manual during the Spring, 1979 semester. It was their diligence in following the manual, and their warmth and excellence in teaching that allowed for the research component to be implemented as planned. On behalf of the project staff, and the 80 teachers, thanks are expressed to Dr. Laurence W. Aronstein, Ms. Patricia L. Duffy, Ms. Norma J. Spignese, and Dr. Guy A. Tardanico.

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INTRODUCTION

Project FOCUS (Program Methods and Materials for Training Career Educators) was a one year funded project conducted by the Career Education Program, School of Education at Boston University. The project was sponsored through a Career Education grant, U. S. Office of Education, U. S. Department of Health, Education and Welfare from the period September 1, 1978 through August 31, 1979 (Grant #G0078C0021).

The project was designed to accomplish the following four major objectives.

1. To design and develop a staff development training manual that would provide elementary school educators with the skills needed to implement career education in their school systems.
2. To field test that training manual with 80 teachers representing urban, suburban and rural school systems.
3. To conduct evaluation and research that would measure the effectiveness of the training program in both the cognitive and affective domains; and test the "matching" of the receptivity of the teachers toward different levels of structure in the training program.
4. To disseminate the results of the project, and make the training manual available as a replicable, exportable document.

The project was implemented as designed, and the training manual developed was proven through the research to be an effective tool for staff development in career education. The research also verified the soundness of matching different types of instruction to the needs and receptivity levels of the teachers.

The final reports for this project have been produced in three separate volumes. Volume I, Project Description, includes an overview of the managerial and developmental activities of Project FOCUS. This document provides valuable information for those who are managing similar programs or who anticipate conducting such an effort.

Volume II, The Training Manual, contains the revised training program, with an introductory chapter and a final chapter addressing the evaluation of the program and the participants. The chapters of this manual each represent one or two sessions of the fifteen session training program. Each chapter contains an introductory section, step-by-step procedures and content outlines for conducting the training activities, and all the resources - transparencies and handouts - needed by both the trainer and participants for the successful completion of each session.

Volume III, Theory and Research: Evaluation Results, contains the theoretical basis for the research, the research design and methodology, all instruments employed, and the analysis of the data and results of both the summative and formative aspects of the project.

These volumes may be examined independently for their respective functions, or together to form a comprehensive review of the entire program. The project staff hopes they will be of use to the profession, and of assistance in the furtherance of career education.

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Project Co-Director

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CHAPTER I

CAREER AWARENESS STAFF DEVELOPMENT

Introduction

This manual is designed for the person responsible for career education staff development in a school system; or for designing, conducting, and evaluating career awareness programs at the elementary school level. You may be the principal of an elementary school, or a staff consultant for your school district. In any event, the continuous development and professional preparation of your teachers is of prime importance to you. It is for you that this manual is written. This text is a comprehensive training program to provide teachers with the skills needed to implement, or infuse, career awareness activities into the regular, on-going school program. It is divided into chapters that represent one or two training sessions each. Each chapter provides the instructional guidelines, background information, and resources needed to conduct the training program. The manual - or training program - is divided into three major sections. The first section provides the background information needed by teachers to understand career education, and develop the ways by which this educational movement may be integrated into the school program (Chapters II and III). The second section of the training program provides the specific strategies and tools used by teachers to write instructional activities and units (Chapters IV - IX). The last section provides activities to develop skills in evaluating career education materials, and examines the differing roles of school personnel related to career education (Chapters X and XI). The manual provides the information needed for infusing career education, for guiding others in this infusion process, as well as for designing and developing effective instructional strategies that will enable you to provide quality staff development programs for your school.

A Description of Career Education

Career education is an educational movement that began early in the decade of the 1970's. It was initiated by Sidney P. Marland, who was then the assistant secretary for Health, Education, and Welfare and responsible for the United States Office of Education. Marland instituted career education as a national priority after he examined national statistics regarding education in general (Marland, 1971). Statistics at that time, as well as current data, reveal the following: Approximately two out of every ten students who graduate from high school will ultimately complete a baccalaureate degree. Approximately two more students out of every ten will leave high school with a specific saleable skill, acquired through a vocational education program (Division of Occupational Education, 1977). Assuming that the two students who receive the baccalaureate degree, and the two students who receive specific vocational training will both find occupational success and occupational satisfaction within their work careers, one burning question remains: What happens to the other six out of every ten high school graduates?

Underlying this issue is a more fundamental issue. That is: "What is a school's career-related responsibility to its students?" Are schools in the business of providing tomorrow's trained work force? Or, are schools in the business of helping each student acquire a self-understanding and satisfaction that will lead to autonomy and a self-actualized, fulfilling lifestyle? Or, are schools designed to provide youth with a good solid grounding in basic skills, and an appreciation for the liberal arts and sciences? Or, are schools really in the business of preparing students for more school - that is to focus their energy on those students who will go on to higher education? (Dewey, 1916.)

The answer to this question sets the fundamental philosophical position, and subsequently the goals, for a school system. The answer, as viewed by the authors, and as espoused by career educators, is that the schools should be focused pluralistically to meet all of these objectives (Hoyt, 1975). The school cannot meet all of these objectives equally as well for all students. And, not all students will have the same needs or demands to bring to school. It is this dynamic balance of psychological, sociological, economic, philosophical, and developmental forces that has provided much of the tension in curriculum decision-making throughout the history of education in our society. The psychological needs of each learner, the societal needs of our country, and the information and skills deemed essential for all students to acquire, form the interplay and balance of a school curriculum (Tyler, 1949). Career education is a movement which asks us to examine the relationship of these components to each other, and to help provide experiences in school that will enable every student in that school to reach personal self and social fulfillment, while preparing them also to make a continuing contribution to our productive society.

Many individuals have misguided views about career education. It is not vocational education. Neither is it occupational information, or a general understanding and knowledge about many different kinds of occupations. Rather, it is a developmental process by which the student learns about himself or herself, and relates that self-knowledge to the world so that the process of choosing and selecting a career becomes a natural outgrowth and positive expression of a healthy self-concept (Hoyt, 1975).

From a societal perspective, occupations and careers are some of the strongest vehicles through which we interface with the world. Ask yourself this question. When you are at a relatively formal party and find yourself engaged with an individual that you do not know, what is a typical way in which you begin that conversation? For most of us, we ask this new found person the question: "What do you do?" The answer to that question tells us many things about that person from both an objective and subjective perspective. In fact, an individual's occupation tends to define that person's relative economic position in society, the status that is generally attributed to that occupation, the probable range of that person's educational background, and may reveal information about the particular culture or subculture of the individual. For many individuals, specific values are characteristic of certain occupational groups. There is evidence as well that stereotypic behaviors are attributed most singularly to occupational classifications (Campbell, 1977). Those who have been in the "job-hunting market" in recent months, may agree with the position that: "It is easier to change your spouse than it is to change your occupation." While this may be an exaggeration, it *is* true that our occupations define the nature of much of our waking lives (Bolles, 1972). They *do* affect our lifestyle very significantly. They *do* put specific ranges upon our incomes, and will affect the manner and settings in which we relate to other people. For many, social relationships and community life are functions of occupation as well. It is reasonable to state, therefore, that economic career paths consume more waking hours than almost any other single function in our lives. In addition, our career will have as great a personal, social, and economic impact upon our lives as almost any other force. If the schools accept responsibility for helping youth to achieve their full potential for self-actualization in society, then they must accept the highest attainment of occupational satisfaction as part of that goal. This is the "bottom line" for career education. Its goal is to help youth understand themselves, and understand the various aspects of society, so that the process of choosing a life's work will be a meaningful, developmental process over time that will allow for both the maximization of our human resources as a society and for the self-actualization of each individual's career goals.

An examination beyond the specific knowledge base of information transmitted in schools through the content or substance of the academic disciplines, reveals two additional sources of curriculum. The first of these is the development of a healthy self-concept in the learner (Mazlow, 1968). The second is the acquisition of those transferable skills applied from one situation to the next, irrespective of the content or substance of a situation or a particular field of knowledge (Pratzner, 1977). Examples of transferable skills are: problem-solving, decision-making, information processing, planning, goal-setting, communication skills, and interpersonal skills. The way in which learning experiences and instructional activities are organized frequently incorporates a concern for the development of transferable skills, or process skills, transmitted through the content of the lesson. For example, instructional activities conducted through a group dynamics process to discuss an experience are designed to help students acquire interpersonal skills, while they learn about the information intrinsic to the subject (Joyce & Weil, 1972). Science lessons in which students learn through scientific processes are designed to help students acquire skills in the scientific method, or problem-solving behaviors and strategies. Career education, therefore, places great emphasis upon developing life-long transferable skills as an integral part of preparation for work.

The third component from which career education derives objectives, in addition to an examination of the learner and society, is that of developing positive attitudes toward work (Haldane, 1974). That is not to say that career education seeks to reinstate a "work is good, pleasure is evil, leisure is the devil at work" orientation toward life. Rather, career education recognizes that a self-actualizing human being has a positive way of expressing his or her self-concept through a variety of situations, including work. Positive values about self and work, therefore, are essential for self fulfillment and for social fulfillment in a productive society (Green, 1968).

Career education, therefore, seeks to develop a healthy self-concept and self-awareness in each learner; provide knowledge and information about the various work roles and lifestyles in our society; build healthy self-concepts; provide process skills (transferable skills) for each learner; and help each youngster develop a personally meaningful set of work values.

How can such ambitious goals be achieved through the current school curriculum? In fact, there is increasing pressure from many facets of society today to invest more time in the acquisition of basic skills, and less time in such "frills" as career education. Is career education, therefore, a frill that is nice to have but for which there is no time? Are a group of career education specialists needed who will offer career education programs in elementary schools in a fashion similar to that of art, music, and physical education? Or, must each teacher receive an extensive staff development program in order to provide career education programs? Who will pay the price of such an expensive program requiring materials, staff training, and additional time within the school day? And, if career education is to be added to the school day, what is to be taken out? The current elementary school curriculum can be compared to a bucket full of water. If another cup is to be added, some water must spill over the sides. If that is so, what must we be asked to remove from an already overcrowded program?

The answer is that career education seeks *none* of these alternatives as its vehicle for instruction. Rather, career education seeks to *infuse, or integrate*, the elements of the career development process into the ongoing curriculum and instructional program in the school. Just as powdered coffee lightener changes the nature and taste of the coffee without causing a teaspoon of coffee to spill over the brim; and just as vegetable food coloring changes the color and appeal of water without changing its essential substance; career education impacts the school curriculum and provides for program enrichment by changing the *nature* rather than the *substance* of the ongoing elementary school curriculum.

Career education is comprised of a series of elements to be interwoven into the fabric of the curriculum. There are eight elements in the generally accepted career education model (Drier, 1975). They are as follows:

Self-Awareness	leading to	Self-Identity
Educational Awareness	leading to	Educational Identity
Career Awareness	leading to	Career Identity
Economic Awareness	leading to	Economic Understanding
Decision-Making	leading to	Career Decisions
Beginning Competency	leading to	Employment Skills
Employability Skills	leading to	Career Placement
Attitudes and Appreciations	leading to	Self-Social Fulfillment

Career education is the process of designing instructional activities that focus on one or more of these elements to enhance, enrich, and serve as the vehicle for the ongoing instructional program. For example, teaching students how to make change with money is an accepted part of the math curriculum in the elementary school. It reinforces addition and subtraction skills, using practical, meaningful objects (coins) that are commonly known to students. This activity is actually an example of career education infusion. Economic understandings are being infused into addition/subtraction through the vehicle of real money. A game such as Monopoly is another good example of a potential career education infusion activity. As the students play Monopoly, they are constantly exchanging money and learning to make change. The nature of the game, however, teaches also many basic economic understandings about real estate, mortgages, purchase and sales processes, the relationship of the value of property to the amount of rent that may be charged, among other concepts. By using the game of Monopoly to reinforce math skills, and then providing for the students to discuss other concepts employed in that Monopoly game, the career education element of economic understanding is infused into the math program. Just playing Monopoly by itself, however, does not make for a career awareness activity. The development of an experiential activity into a fulfilling career awareness activity is the way in which the teacher brings out certain elements and objectives among the students. The process of conducting the activity, the follow-up process after the activity has been completed, and the orientation toward the eight elements of career education form the unique contribution that the teacher brings to the classroom. Simply playing Monopoly and putting the game away would not make this activity a career education activity, even though some economic understandings might be developed along with the addition and subtraction skills. By discussing these economic principles and clarifying them with the students the teacher begins to focus on the economic understandings element of career education. By further asking the students to state how they felt about playing the different roles in the game and by describing how they felt about having or not having money, personal values and orientations toward life may begin to be developed. This is another element of career education. At the elementary school level these are awareness activities, designed to help students perceive the role of the school (and the academic subjects) as supportive of the development of their personal needs and bring relevance to the school program related to the broader functions of our society.

When asked about different kinds of occupations, students will typically list those in which they have had some first-hand experience (Leifer & Lesser, 1976). Prominent on the list will be: teacher, doctor, nurse, policeman, store keeper, etc. (Resnick & Smith, 1979). These are the occupations reflected in the world of the child. Most elementary school programs do, in fact, focus upon these life roles in the primary grade unit addressing the study of the community. How does one broaden this study of the community into a career awareness unit? The answer lies in the way the manner in which the teacher structures the activity and conducts the experiences of the unit with the students. If students learn about the various roles in the community from a clinical and objective perspective, career awareness has not been infused. If, however, students visit these work environments through field trips; hear people talk about their work and how their work affects their lives;

and have an opportunity to express their own values about these work roles and discuss how these work roles affect the total society, then the community study has become a career awareness unit as well. Career awareness at the elementary school level, therefore, is conducted through the infusion of one or more of the elements of career education into the ongoing instructional process.

The Current Status of Teacher Preparation in Career Education

How should teachers be prepared for career education? Since elementary school level career education is not a separate subject area, and not to be taught by specialists at separate or special times of the day, it is part of the ongoing responsibility of every teacher. At the elementary school level, each teacher should have an understanding of the basic principles of career education, along with training in the specific skills, strategies, techniques, and processes of preparing and conducting career awareness infusion activities. On a pre-service basis, this goal can be accomplished through various courses offered to elementary school teachers for the design and development of career awareness activities. Or, just as career education should be infused into the elementary school program for students, career education skills may be infused into ongoing curriculum and methods courses in undergraduate teacher preparation.

The basic purpose of this manual, however, relates to the ongoing staff development of professional teachers. Using an in-service model, elementary school teachers can receive the skills needed to implement career education within a relatively brief staff development program. This manual provides the structure, information, guidelines, and resource materials for conducting just such a program. It is recommended that this career education staff development program *be conducted by the building principal*, or other *instructional leader* for a building unit. It is recommended further that this individual work closely with a career education specialist, whether this person be within the school system, from the state department, or from a local college or university. The manual itself, however, is designed to be self-instructional for the career education trainer. A careful study of the resources provided for each session, along with the instructional guidelines, should provide sufficient information for an effective training program.

For those interested in studying career education as a discipline and mode of inquiry, this manual serves as a basic source of information about the infusion process at the elementary school level. It does not attempt to provide the extensive review of career development theory or curriculum development theory that would be needed for the training of career education specialists.

Implementing Career Education in the Classroom

As described in the initial section of this chapter, career education as an educational movement should be infused, or integrated into the ongoing instructional process. When examining the practical implementation strategies of career education, however, four distinct categories, or instructional processes, may be clearly identified for use by the elementary school teacher.

The first of these is the classroom infusion activity. The classroom infusion activity is of relatively short duration (usually twenty minutes to one hour) and is designed to be interwoven or integrated directly into the ongoing instructional program. The use of the Monopoly game to help students learn about addition and subtraction is an example of a career awareness infusion activity. Each activity has an identifiable beginning and end and can usually be conducted within one class lesson. It is derived from the needs of the learner and of the particular subject under study at that time and will contain *one or more* career education elements. It tends to be experiential in nature, or activity-oriented. It also tends to have a very high learner involvement in the instructional process. Career awareness programs may be implemented at the elementary school level by using career infusion activities at various times and at various points of the instructional process with various subject fields. That is *not* to say that career education infusion activities *must* be linked to every subject area for every period of every day. Rather, when career education elements serve as a *natural outgrowth* of the existing program of study then a career awareness infusion activity should be developed and placed in the program as a *vehicle*, or means, by which that subject is taught at that time. Sequential career infusion activities conducted over time with students will provide the basic ingredients of a comprehensive career awareness program, provided that the teacher is careful to include all the dimensions of career education over a period of time.

In designing infusion activities, the teacher should begin by reviewing the existing school curriculum to identify the objectives of the current instructional program. These objectives may be derived from textbooks, resources available to the instructor, curriculum guidelines, and specific needs of the students. Each of these objectives should be examined to determine its relationship to the elements of career education. Elements should be mapped, or matched, onto existing instructional units. The teacher can then develop student activities that will provide for both the ongoing established instructional objectives and the career education elements. This mapping process is the substance of Chapter IV of this text.

The second major strategy, or organizing vehicle for career education, is the interest center. The interest center has several properties that are quite different from infused instructional activities. Interest centers are typically placed in a separate, identifiable location of the classroom, contain a number of different materials, and include instructions for a variety of activities to be conducted by the students. Students proceed to an interest center either individually or in small groups to conduct the activities provided. These activities may be highly structured, or contain very little structure. In either event, some student choice in selecting an objective and activity is generally provided within an interest center. Interest centers are typically established around such subject areas as math, social studies, science, or special topics of interest. They are appropriate vehicles for developing career awareness as well. Such centers may focus around different occupations or groups of occupations; around specific transferable skills such as decision-making or problem-solving; or be derived from the ongoing instructional program. They provide an exciting alternative through which the teacher may simultaneously manage multiple activities in a classroom while providing for the individual needs of each learner. Chapter VII of this book is devoted to the process of designing and constructing career awareness activity centers in the classroom.

The third major organizing structure for career awareness in the elementary school is the development of an instructional unit that *incorporates a number of career awareness elements*. Instructional units are an exciting aspect of the elementary school program. The study of the community previously discussed is an example of such an instructional unit. Other units addressing the Revolutionary War, the westward movement, a study of ecology, growing plants, etc., are well known instructional units at the elementary school level. An instructional unit is *not* something that occurs during the entire school day for a period of days or weeks. Rather, it is a *series of related activities over time* that typically climaxes through a particular and usually exciting culminating experience. Thus, a study of ecology might include talking about ecological chains; conducting a field trip in woods and streams around the school; following up with a field trip to a local swamp; researching and reviewing related magazine articles; performing a skit or play produced by the students; growing objects under different conditions; and culminate with the experience of developing a large school display that depicts the life cycle. The entire class might be engaged in this activity over a period of from two to six weeks, in which different times of the day on different days would be devoted to the project. At some times the entire class might work together on an activity; while at other times students might work individually or in small groups toward the achievement of a particular objective in the unit. Instructional units typically are experiential in nature and involve the students actively in the learning process.

Career awareness instructional units are units in which many, if not all, the elements of career education are "mapped" onto the ongoing instruction for the class. That is, individual activities within that instructional unit would incorporate various elements of career education.

Typically, career awareness instructional activities incorporate such themes as: the community as a workplace; different families of occupations; worker traits and attitudes; occupations as role models; or other topics that address attitudes and skills related to a variety of career paths and lifestyles as well as a study of specific occupations or clusters of occupations in a variety of work settings. The instructional unit itself must involve the students in a variety of learning activities, infuse many of the elements of career education, and peak through some culminating experience.

Chapter IX of this manual describes the role of instructional units in career awareness, and how they may be developed for particular programs.

The final vehicle typically used for the infusion of career awareness in the elementary school is the use of the community as a resource. There are many aspects of the community that may be used for the infusion of career education. Bringing representatives from the community into the school as guest speakers is a classic example. However, the use of a guest speaker simply to talk about his or her job does not utilize the full potential of this resource. Helping the guest speaker explore how his/her job affects society and the local community is essential to a thorough examination of role models and lifestyles. Furthermore, having that person describe how his or her job affects his or her lifestyle and impacts upon family life is critical as well. A discussion of the attitudes and values that a person has relating to work provides fertile ground for values clarification and self-concept development. Educational preparation for a career and next steps in a career path are important ingredients of this sharing process. It is not difficult to see that the use of community resources can serve as an exciting vehicle to help students learn not only about a particular job in the community but about the values, attitudes, skills, and lifestyles that are created by people at work, and how jobs promote values for the people who work in them.

Another classic use of the community resource is the field trip. Just as a guest speaker simply talking about a job does not make for a career awareness program, a field trip to the local zoo is not in itself a career infusion activity. The preparation of the students for the trip, the total environment they are exposed to on the trip, the follow-up discussion and activities; these are the ingredients that bring a field trip to life and help students experience the career awareness elements that may be found within that particular activity.

There are many other activities that involve the community as a resource. Senior citizens, community agencies, parent volunteers, and the like all are essential contributors to a career awareness program. In addition, the appropriate use of these community resources will provide an enriching and rewarding resource for the teacher in conducting classroom instruction. Chapter VIII of this text provides greater detail about the use of community resources in career education programs. In addition, Chapter VI describes role-playing through which a number of community resource related activities may be developed.

Organization of this Training Program

This manual is organized so that each chapter serves as either one or two sessions in a career awareness staff development program. The chapters themselves fall into three broad groups. The first group provides a framework for career education. This information is provided in Chapter II of this manual, and should be used as the basis for two training sessions. Two types of experiences are provided in this chapter. First, the students directly experience two kinds of career education activities. The first, (the Astronaut Space Capsule) provides the teachers with an elementary school level awareness infusion activity so they might see how such an activity works in the classroom. The second (What Will You Do?) provides the teachers with a personalized career awareness experience to help establish their commitment to the need for career education. Accompanying these two activities are content outlines, explanatory statements, handouts, and resource materials that provide the historical basis, theoretical framework, rationale, and general organizational principles of career education.

The next chapter (The Elements of a Career Education Program) continues the theme of exploring career education. In this chapter the students examine each of the elements of career education and develop personal definitions for each of these elements. The concluding training session for this part of the program is Chapter IV, in which the teachers "map" their curriculum units and materials to the various elements of career education. At the conclusion of these four training sessions (Chapters II, III, and IV) therefore, the teachers should have a sound theoretical grounding in the basis for career education, historical review and rationale, and basic directions as to how it should be implemented in the school setting.

The next major organizing section of this manual provides the teacher with the specific skills needed for developing and implementing a career awareness program as an integral part of elementary school curriculum and instruction. As stated earlier, there are four basic there are four basic strategies that are used for providing career awareness at the elementary school level: infusion activities, interest centers, instructional units, and the use of community resources. Chapters V through IX correspond to the sessions of the training program that describe how to conduct these activities. Chapter V deals with the process of developing infusion activities and should be conducted over two training sessions. In Chapter VI, role-playing is specifically addressed as a strategy since it provides a unique opportunity in career awareness for the development of attitudes, values, and social relationships essential to the transferable skills needed for many jobs. Chapter VII provides the tools for establishing career awareness interest centers, while Chapter VIII provides an opportunity to view the various kinds of community resources and how they should be implemented in career education programs. Chapter IX should also be conducted over two sessions of the training program, and provides an opportunity to review and develop instructional units. This chapter is much like Chapter V, in that the teachers look at existing materials and then develop their own instructional activities.

The last several chapters of the manual provide training session materials that address system-wide considerations. Chapter X provides guidelines for the evaluation of career education materials developed by individual teachers and/or school systems, State Departments of Education, institutions of higher learning, and commercial agencies. The criteria for review of curriculum and program materials, considerations to follow in the review process, and an opportunity to actually review materials should be an integral part of a training program. Thus, this component has been included in Chapter X of this manual, and should be conducted as two sessions of the training program.

The final chapter of the manual addresses the roles and functions of school personnel in career education. The roles of the teacher, the career education specialist, the supervisor, the administrator, the volunteer, the parent, and the community resource person should be examined at this point. Questions concerning the organization of career education in the classroom become a natural outgrowth of an examination of the different roles of the professionals in this program.

Each of the chapters of the manual include the resources and strategies for one or two specific training sessions. Following is a listing of each chapter and the corresponding sessions recommended for use in a training program.

	Chapters	Sessions
I.	Organization of the Training Manual	No sessions
II.	Introduction to Career Education	Sessions 1 & 2
III.	The Elements of a Career Education Program	Session 3
IV.	Mapping Career Education to the School Curriculum	Session 4
V.	Infusing Career Awareness into the School Curriculum (Writing Infusion Activities)	Sessions 5 & 6
VI.	Role-Playing: An Example of an Instructional Strategy	Session 7
VII.	Interest Centers for Career Awareness	Session 8
VIII.	Using Community Resources for Career Education	Session 9
IX.	Developing an Instructional Unit for Career Education	Sessions 10 & 11
X.	Evaluating Career Education Materials	Sessions 12 & 13
XI.	Roles & Functions of School Personnel in Career Education	Session 14
XII.	Program Evaluation and Student Assessment	Session 15

Organization of Each Chapter (Training Session)

The organization of each chapter follows a uniform format. There are three components to each chapter: an introductory narrative, an instructional guide, and the resources needed for instruction. These materials provide the staff developer with the background information needed to successfully review and conduct each session, as well as with the resource tools needed for instruction.

In the narrative introduction the authors provide background information about the topic, and explain briefly why it is an important component of a career awareness program. Also provided in this introduction are some of the "cues" and strategies found to be helpful in conducting the session activities. Particular instructional sequences that should be conducted by the staff developer to enhance the value of the treatment are also described in the narrative section.

The instructional guide provides, in outline form, the objectives, sequence of instructional events, and list of resources to be used by the instructor in conducting the session. The sequence of events for each session should take approximately two to three hours to complete. Chapters designated as double sessions will require four to six hours. The events are designed to accomplish the objectives of the session, and specify where and how the instructional resources are to be used. Also provided is a brief content outline of key points to include in the instructional sequence. The background information regarding these key points can always be found in the instructional resources provided for that session.

The last section of each chapter provides the actual resources needed for the satisfactory performance of the session. These resources come from a variety of documents. Some were developed by the authors. Others are the products of State Departments of Education, federally funded career education demonstration projects, research studies, journal articles, or commercial materials. Permission to use and reproduce these materials was obtained prior to their inclusion in this document. When particular items are indicated for use as transparencies, clear black-line masters have been provided that may easily be converted into transparencies with a thermofax machine.

Since the time and expense involved in the reproduction of many of these resources is quite extensive, it is recommended that sufficient copies of the training manual be provided so that one may be given to each trainee in the program. This will insure their acquisition of a quality copy of all of the resources needed for the training activities.

High and Low-Structure Instructional Design

The structure of the teacher training component of the manual was organized from the research evidence that teachers will differ in their knowledge of, and receptivity toward, career education (Riccinti, 1974). Some teachers are unfamiliar with career education and have had very little experience implementing the concepts in the classroom. Many have not read extensively about career education, and are unfamiliar with available instructional materials. Other teachers have had a great deal of experience in planning and organizing career education activities in the classroom, have participated in curriculum planning sessions, and are highly receptive toward its philosophical orientation. Teachers with greater knowledge and more positive attitude regarding career education tend to prefer the "low-structure" or "learner-centered" training program. Teachers with less information and a more cautious perspective tend to prefer the "high-structure" or "instructor-centered" approach.

There is both a "high" and "low" structure treatment provided for each instructional sequence. Table 1 summarizes the essential distinctions regarding these approaches. The choice for one approach or the other will be based on the characteristics of the learners, and the style preferred by the instructor. The learner-centered approach imposes less teacher structure on the learner, and requires that the learner both contribute to the planning of the activity and assume responsibility for conducting it. The learner-centered approach has a higher degree of interpersonal complexity, often requiring that the learners interact in groups with one another in the development of the activity. In this approach, the learners use the group process as a source of information, seeking clarity from the instructor, and background information from the resources provided in the training package. The content comes from the students themselves, using a flexible and open-ended approach to time.

Another aspect of learner-centered activities is the degree of information complexity. Information complexity is an unusual concept in that it refers directly to the abstractness of the material, as well as the ways in which that material is being handled by the learner. Information is often generated by the learners in a spontaneous fashion, reviewed by other students, and developed as an idea. This process differs considerably from the more structured and stable information processing model employed in such formal processes as a lecture or teacher-guided discussion.

The learner-centered activity is typified as well by varying degrees of abstractness of the material. Students may be encouraged to process information at first using concrete, manipulative approaches. They may then be asked to represent this information in the form of charts and graphs. At

Table 1.

COMPONENTS OF STRUCTURE*

COMPONENT	LOW STRUCTURE	HIGH STRUCTURE
Imposed Structure in Establishing Learning Activities (Source of the Activity)	Learner makes major contribution in planning activity and accepting responsibility for performance	Teacher designs and presents activity to learner and establishes performance standards
Interpersonal Complexity	Learners interact in groups - with each other	Learner works alone or interacts only with teacher
Resources	Learners get their own resources or generate their own data	Teacher provides all needed resources
Source of Content	Content comes from the learner - experiences, group discussion, etc.	Content is provided by the teacher and presented to the learner
Time	Flexible, open-ended, determined by the objective	Restricted and defined
Information Complexity	Multiple sources of information available to the learner	One source of information - teacher or text
Level of Abstraction	Abstract - Conceptual - Theoretical - Symbolic "If-then"	Highly concrete and factual
Evaluation	Learner contributes in designing and conducting self-evaluation	Instruments and procedures designed by teacher
Objectives	Objectives determined as a result of analyzing student needs	Teacher establishes objectives based on approved text and materials

*NOTE: The horizontal lines with hatchmarks indicate that the degree of imposed structure is not an "either-or" variable. Each horizontal line represents a continuum, and every component may be developed at any point along this continuum.

a more abstract level, students may then be asked to analyze information in the form of "if - then" propositions and abstractions. The learner-centered approach encourages this modulation from one level of abstraction to another.

The learner-centered approach is evidenced again in the process of evaluating the training sessions. In such a low-structured model the students are encouraged to participate in the evaluation process. This evaluation includes both the process of the training (formative component), as well as the results of the training (summative component).

The "high structure" approach to the training program focuses more on teacher-centered activities. Teacher-centered activities are typified by the following characteristics: the instructor designs and presents the activity to the learner; the instructor establishes the performance standards; and learners are more likely to work alone or interact only with the teacher. The teacher provides the basic resources needed during the session. The content of the lesson comes from outside the student, often from outside the teacher and is presented to the learner through the teacher. The teacher-centered approach is more restrictive in specifying time allotments for instruction. The information to be processed by the learner is usually more stable, comes from the teacher or a text, and is presented in an orderly fashion. It has little in the way of complex ideas derived from students or processed by students in complex interpersonal ways, as was characteristic of the learner-centered approach. The teacher-centered approach is more likely to impart concrete, factual information. The desired outcome is one of mastering the material, coming to understand it, coming to comprehend it.

Evaluation instruments and procedures are designed by the teacher and administered to the students to verify their comprehension. Evaluation is based on objectives established by the teacher to insure mastery of the text content and materials.

These two approaches to teacher training are clearly very different. The option of using either, however, offers teachers with differing learning styles an opportunity to engage the topic of career education in a way that is meaningful for them. For those teachers who prefer a more structured learning environment, structure is provided through the teacher-centered approach. For teachers preferring a student-centered approach, a low-structure model is offered in which students play a more responsible and responsive role in the learning process. It is important to remember that although two separate and distinct treatments are provided, the goals of the training program are the same for both groups. These goals include an indication that the participant has had an introduction to the philosophy and goals of career education; that the teacher understands how career education is infused into the curriculum; and that the teacher is mindful of ways in which resources (community and others) can be brought to bear in implementing career education programs.

Evaluating Program Effectiveness

There are several considerations in evaluating the effectiveness of a training program for career education. First, it should be emphasized that the instruments provided in this text (Chapter XII) are not for the evaluation of the career education program in the elementary school itself. Rather, the forms and materials are provided for evaluating the training program conducted utilizing this text as the basic resource.

The first question addresses the effectiveness of the program itself. That is, did the program complete its objectives? There are two aspects of this question. The first is: Did the participants learn what they were supposed to learn about career education as specified in the objectives and content of the training program? The second is: Do the participants have a more positive attitude toward career education after the program than they did before the program? Two instruments have been provided to answer these questions. The first of these is a cognitive test. This test contains fifty multiple choice items that may be used both before and after instruction, using a pre- and post-test design. The amount of growth, or improvement in scores, from before to after the training program will be a measure of how much the teachers learned in terms of the program objectives. The second test is an affective, or attitudinal measure. This test measures how the teachers feel about career education. Once again, the difference in scores from before to after the training program will be a measure of how effective the program was in helping to improve attitudes toward career education. The conceptualization of these instruments, as well as the validity and reliability data, is included in Chapter XII of this manual.

The second major question to be asked is: How did the participants feel about the program as it was being conducted from session to session? That is, was the process of the training program a good one in terms of the attitudes it was developing in the teachers and their responsiveness to each of the sessions? To address this issue, a formative assessment form has been provided. This assessment measures the participants' degree of satisfaction and involvement in each of the sessions. If participants are dissatisfied but highly involved, then the process of the session is working well but the manner in which it is being delivered needs to be redressed. If, on the other hand, the participants are highly satisfied but not involved then they are not being challenged. In either event, this form provides an opportunity for the students to respond to each session and for the instructor to take a "photograph" of each session on a daily basis.

In addition to this student data, two instructor formative feedback evaluation forms are provided. The first of these forms is generic, enabling the instructor to respond regarding the effectiveness of each session. The second form is specific to each session, and provides an opportunity for *mapping* the *actual* activities of each session to the *instructional guidelines*. This provides a monitoring device for the *integrity* of the program, and establishes how closely the instructor is following the instructional guidelines in this manual.

In addition to the pre- and post-test measures which will determine the *knowledge* and *attitudes* achieved by the students in the program, and the formative assessment by both students and instructor, extensive research has been conducted to determine how best to *map* the treatment (high or low structure) most appropriately to each student. The background research regarding this process, along with recommendations for the use of this information, is provided in Volume III of the final report for this project (Theory and Research - Evaluation Results).

Staff Development: An Ongoing Process

This manual provides the elementary school principal, curriculum development specialist, career education specialist, or other school decision-maker with the content, scope, format, and resources needed to conduct career education staff development programs for elementary school teachers. The training program presented through this manual will enable the classroom teacher to acquire the knowledge, skills, and resources needed for infusing career education in the elementary school. As such, it is recommended that this manual be used as a basic resource for conducting a staff development program. This program could well be conducted on a "one afternoon a week" basis over several months, or as an intensive experience for several days.

Although the resources could be duplicated by the staff development specialist and distributed to the participants for use, it is recommended that a copy of the manual be provided for each participant and used in its entirety, insuring that all the materials needed for instruction are available.

The authors believe that this manual, and its instructional program, provides the beginning, rather than the end, of a staff development program for career awareness. The essential ingredient to this program is the follow-up by the teachers, with the support of the school administration, for the development and implementation of career awareness classroom infusion activities. The development of a resource center with extensive curriculum materials for career education is an essential component of this process. The support of the staff on an ongoing basis, as described in the roles and functions chapter of this manual (Chapter XI), will play a critical part in the success of this venture.

Career education is a curriculum movement with an outstanding opportunity to provide positive impact on education in the public schools. It is a vehicle that enhances the self-concept of students in the classroom; provides an awareness of the options that the future holds in store for the youth of today; and serves also as a vehicle for enhancing the entire school program as a more rewarding and viable experience for youth. The success of this venture will depend upon the extent to which the classroom teacher and other school personnel at the decision-making level can work together to provide the experiences and resources needed for quality educational programs.

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CHAPTER II

INTRODUCTION TO CAREER EDUCATION

The purpose of the introductory section of each chapter is to provide the instructor and other users of this instructional resource manual with the background information needed to supplement the instructional guidelines for each of the particular sessions.

In general, it is important that the tone and spirit of the fifteen sessions be warm, congenial, and friendly. Most staff development programs are conducted in the late afternoon. The participants have worked hard all day, and it is important that they find the program stimulating, interesting, and exciting. At the same time, classroom teachers typically want such programs to provide useful information and instructional activities which they can use and apply virtually the next day. The "direct applicability" need of each session affected the design of this entire program. As such, each session contains both an activity and the theory, background, and rationale for that activity. In addition, each session includes both a high-structure and low-structure approach to instruction. More receptive teachers will generally favor the approach using less structure. The high-structure model is preferred if you are working in a more formal environment with less knowledgeable or less receptive teachers.

The first session of this program has two major purposes. The first is to provide a "warm-up" and immediately involve the participants in conducting a career awareness infusion activity. This will create positive initial impressions about the staff development program itself, and at the same time provide a career education infusion activity that may serve as a continuous point of reference.

The second objective of this particular session is to establish the theoretical groundwork, rationale, and background information regarding career education.

The lesson should be initiated by first conducting the activity. The recommended initial activity is the "Astronaut Space Capsule." Be sure to have the required materials and resources ready beforehand. You will need raw eggs, rubber bands, styrofoam cups, and the other items listed on the astronaut space capsule activity form. Please check the form and make sure that all materials needed are available.

When the participants arrive, welcome them to the program and inform them that you will start immediately by conducting and analyzing an introductory career awareness infusion activity. Then distribute the forms. If you are using the low-structure approach, divide the students into groups and have them read the instructions among themselves, and ask if there are any questions. If you use the high-structure approach, distribute the sheets and read the instructions to the students, responding to any questions. Then, simply have them conduct the activity as described on the sheet.

It usually requires between 20 and 35 minutes for students to complete this particular activity. In the high-structure class, the students should be working fairly independently. If two or three students gravitate toward each other to confer and discuss the problem on, allow them to do so. In the low-structure model, the students will definitely be working in groups to conduct the activity. During that time, walk around, chat, and be friendly. Don't provide specific answers to questions except to clarify the rules listed on the instruction sheet. The solutions will come from the participants. Make sure that the environment is flexible, so that participants will feel comfortable testing a variety of alternatives. If an egg breaks, or an astronaut "dies," reinforce that this is part of the process and encourage them to try again. Also encourage individuals and groups to try different approaches. If one person in the group has very quick and easy success with one approach, ask that individual to redesign a different kind of a space capsule that can work just as well. There are a number of different patterns that will work. If no student succeeds in solving the problem, you will need to provide an example. The way that has worked best and most frequently is the approach in which eight to twelve holes are punched around the side of the styrofoam cup near the bottom with a pencil, and the rubber bands drawn through those holes and across the inside of the cup so that they actually make a little suspension system in the cup. Then the egg is placed on top of this suspension system. Put the other styrofoam cup upside down inside the first cup, and tie it all together with rubber bands.

After completing the activity, have the students complete the follow-up form. This should take about 15 minutes per person (high-structure), or per group (low-structure). As the groups approach that 15 minute period, encourage them to complete the form and share the results with the class using a "reporting out" process. Rather than have one person or one group describe its answers to all the questions, go around the room for the first question, then around the room again for the second question, etc. This will keep the entire group more alert and involved. You may wish to add suggestions and comments based on the responses from the participants.

It is important the the follow-up form be used as a vehicle to demonstrate that this particular classroom activity can accomplish many different instructional objectives: knowledge about occupations, knowledge of career awareness elements, academic information, problem-solving skills, etc. Many different objectives and follow-up activities can be developed from, and derived through experiential learning. This form provides an opportunity to demonstrate the multiplicity of objectives that can be achieved through this approach to education.

After the class has completed the activity, discuss how this experience was indeed an infused career education, or at the elementary level, career awareness activity. Review the process of infusing - interweaving knowledge of occupations, knowledge of self, and problem-solving skills into the existing science lesson about space.

This introductory activity and follow-up experience requires approximately 1-1 1/2 hours. It provides an experiential base for a discussion of the background information and theoretical underpinnings of career education.

If you are using the high-structure approach, distribute the handouts to the participants and lead a class discussion concerning the rationale and need for career education. In this discussion you should not emphasize a program description of career education. This session should be concerned with the rationale, background, history, and the need that led to the development of career education. Session two will address the programmatic components of career education.

If you are using the low-structure approach, provide the participants with the handouts, and ask them to review and discuss them in small groups. The content outline provided for this session should serve as the organizing guidelines for these small group discussions. The background information for the "conditions calling for educational reform" (which is the first item on the content outline) is provided in the handout entitled "U.S.O.E. Policy Paper - An Introduction to Career Education." This same handout includes also the information needed for the second content area, "basic concepts and programmatic assumptions for career education." Definitions and distinctions will be found in this handout as well.

In reviewing the distinction between career development and career education, emphasize that career development is the process that each of us goes through in life as part of human growth and development. This provides the theoretical base for career education as a program in school.

Historical antecedents for career education can be found in the handout entitled "Historical Evolution of Career Education." Current issues about the movement are in the "Straight Answers to Career Education" handout as well as in the "Youth, Education, and Work Statistics" that comes from Willard Wirtz' book, The Boundless Resource. Develop each of these areas with the class in as much depth as possible to establish a firm understanding of the needs, background, and framework for career education. If there is not sufficient time, this particular topic may be concluded in the next session. Make sure, however, to ask the members of the class to read all the handouts provided in preparation for Session Two.

Introduction to Career Education -- Session Two

The second session comprises the second half of the introduction to career education. There are two objectives to be accomplished in this session. The first is to engage the participants in a personal career development experience so they begin to internalize the need for career education programs. This is accomplished by forcing the participants into the relatively uncomfortable role of examining their own career paths and answering some of the "What if..." type questions. "What if there is no job for me tomorrow?" "What if a reduced number of students forces my school to close and I become unemployed?" From this personal experience will emerge the conviction that schools really should be helping youngsters deal with career related issues. This activity, combined with the astronaut space capsule experience of the first session, provides an experiential base for the last half of this introductory unit, in which the general career education model will be examined.

The personal career development experience is treated differently for the low and high-structure process. In each case, start by distributing the "Transferable Skills" handout. Explain to the class that transferable skills are the skills that are applied and used in a variety of settings. They are independent of specific knowledge or information, and are usually defined by words ending in "ing," such as responding, creating, problem-solving. These skills define actions or capabilities in our personal repertoire. The "Transferable Skills" sheet included in this document was developed from a conference in which 100 employers, including presidents of major corporations, identified the most critical skills that they sought in employees.

The second sheet of this handout lists the most important skills identified by employers, ranked from one through nine. The third sheet shows some of the common transferable skills between what appear to be very dissimilar occupations. In the low-structure approach, you should distribute these sheets to the students and have them review and discuss them in small groups. With the high-structure approach, distribute the handouts and lead a class discussion about them. Using either model, this experience should not exceed 15 minutes.

The group is now ready to move to the next activity. If you use a high-structure approach, you should now distribute the "Life-Planning Laboratory" handout and have the participants individually write their self-descriptions and then list the transferable skills most common to their self-descriptions. In a low-structure approach, start by having each student write an acecdote about a personal experience. Students then read their anecdotes and the rest of the small group identifies the transferable skills used in the story described. Each approach seeks to accomplish the same objective: help the participants look at themselves, review their own lives, identify something that they've done that helps describe who they are, and identify their own transferable skills. As a consequence, the participants should concur that there are indeed transferable skills, and that individual strengths and weaknesses are derived, in part, from each individual's transferable skills.

The next step in this activity calls for the distribution of the "What Can I Do" worksheet in which the students are forced to look at their own skills and analyze what they might do with their own lives if they were forced to pursue a career outside the field of education. The purpose of this activity is to help the participants personalize the career development process so that they believe firmly that schools do have a responsibility to help youngsters similarly experience this process, especially as they are making the critical transition from school to work.

From this experience, the participants should be ready for the next half of this session in which the career education model is discussed. Follow the content outline included with the lesson. You may wish to review some of the handouts of the previous session, or use some of the first session transparencies.

The first aspect of this review should be a discussion of the goals of career education. For many, this will be synonymous with the goals of school: to provide youth with life-long transferable skills, in addition to the ability to either enter the labor force in some capacity and/or pursue further education. The next aspect of this discussion should be an examination of the sequential development of career education. The transparency with the funnel-shaped diagram shows a comprehensive career education system.

The essential components of this program are derived from the eight elements which you may want to show using that particular transparency. Do not, however, dwell overly long on the elements at this time because the entire next session will be devoted to these elements.

The final topic for discussion should be the various delivery system approaches to career education. The astronaut space capsule activity should be reviewed to demonstrate how career education can be infused into the classroom setting on an activity-by-activity basis, or how one can develop interdisciplinary unit approaches in a classroom. The establishment of separate interest centers should be discussed as a very viable approach at the elementary school level. The use of community resources should be explored as well. The use of separate courses established at the middle school and senior high school level, and the process by which a separate program is derived are also worthy of note.

An examination of these delivery systems approaches will set the stage for the rest of the course. Virtually every subsequent session will, in some fashion, be related to one of these delivery approaches to career education.

SESSION ONE
INTRODUCTION TO CAREER EDUCATION
(PART ONE)

OBJECTIVES:

1. After participating in a career awareness activity, and completing and discussing the follow-up worksheet, the participants will describe the salient features of a career education learning activity.
2. After participating in a discussion of the rationale, history, and basic principles of career education, the participants will justify the need for career education through class discussion.

HIGH-STRUCTURE GUIDELINES	LOW-STRUCTURE GUIDELINES
1. Distribute astronaut space capsule form, read it aloud, answer questions.	1. Distribute astronaut space capsule form, have students form groups of 3, read their sheets, and discuss the activity. Teacher answers questions.
2. Have each student do the activity individually. Teacher conducts test flights.	2. Have each group do the activity and test their results. Groups may develop one or several "test models."
3. Students then complete the worksheet.	3. Have each group complete one worksheet.
4. Teacher reviews items one by one with the class, eliciting responses from students.	4. Groups now share their responses with each other, and discuss how this is a career awareness infusion activity.
5. Teacher explains how this is a career awareness infusion activity.	5. Teacher distributes handouts and asks groups to discuss their perspective of the need and rationale for career education, in their groups.
6. Teacher uses handouts and transparencies and leads class discussion of rationale and basic principles of career education.	6. Groups discuss their findings. Teacher coordinates process.

RESOURCES:

1. Astronaut Activity Form
2. Astronaut follow-up worksheet
3. Transparency masters (3)
4. Handout - "Straight Answers on Career Education" (article by Ken Hoyt)
5. Handout - "Youth, Education and Work" (from The Boundless Resource by Willard Wirtz)
6. Handout - "Historical Evolution of Career Education" (from the Ohio State University)
7. Handout - "An Introduction to Career Education" (from USOE Policy Paper on Career Education)

ASSIGNMENT: Read all handouts in this chapter.

INTRODUCTION TO CAREER EDUCATION

SESSION ONE - CONTENT OUTLINE

1. Conditions calling for educational reform
2. Basic concept and programmatic assumptions for career education
3. Definitions and distinctions
    a. Career
    b. Career education
    c. Career development
    d. Vocational education
4. History
5. Current issues
    a. Youth unemployment
    b. School relevance
    c. Back to basics
    d. Transferable skills

RESOURCE MATERIALS

THE ASTRONAUT'S SPACE CAPSULE

Instructional Objective:

Provided with the appropriate materials, the student will design, construct, and successfully test a simulated space capsule that will protect the "astronaut" during an eight foot "free fall" onto a hard surface.

Supplies and Materials:

One dozen raw eggs (for each group of 6-8 students)
A package of 6 oz. styrofoam drinking cups
A package of paper towels
Box of rubber bands
Pencil
Pair of scissors

The Activity:

Your problem today is to design a space capsule that will protect your astronaut in a crash landing onto a hard surface from a height of eight feet. Your astronaut is a raw egg. Your capsule consists of two of the styrofoam cups. You may cut, rip, shape, join, or otherwise use these two cups in any way you see fit to hold the astronaut and protect him/her during the flight and crash landing. You may use the rubber bands to hold the capsule together, or for any other purpose, with one exception. You may not stuff the bottom of the cup with rubber bands for packing material.

Once you have built your space capsule, place your astronaut in it and drop it from a height of eight feet onto a hard surface. If the egg breaks, your astronaut died in the crash landing. If your astronaut survives the crash landing, break the shell to see if the yolk is still intact. If the yolk is broken, the astronaut survived the crash landing but then died of internal injuries.

Remember, there is no one way to solve this problem -- several approaches will work. Just in case, the paper towels are there to clean up any dead astronauts.

HAVE FUN!

ASTRONAUT'S SPACE CAPSULE

ACTIVITY FOLLOW-UP SHEET

1. State two (2) things you liked about doing this activity.

   A. ______________________________

   ____

   B. ______________________________

   ____

2. State two (2) things you disliked about doing this activity.

   A. ______________________________

   ____

   B. ______________________________

   ____

3. List one thing you learned about yourself from this activity.

   ____

   ____

4. List one thing you learned about the world from this activity.

   ____

   ____

5. Write the titles of two (2) academic lessons you could develop and teach from this activity.

   A. ______________________________

   ____

   B. ______________________________

   ____

6. List two (2) occupations (occupational clusters) represented in this activity.

   A. ______________________________

   ____

   B. ______________________________

   ____

7. Describe one developmental skill, attitude, or value orientation you could elicit and teach from this activity.

   ____

   ____

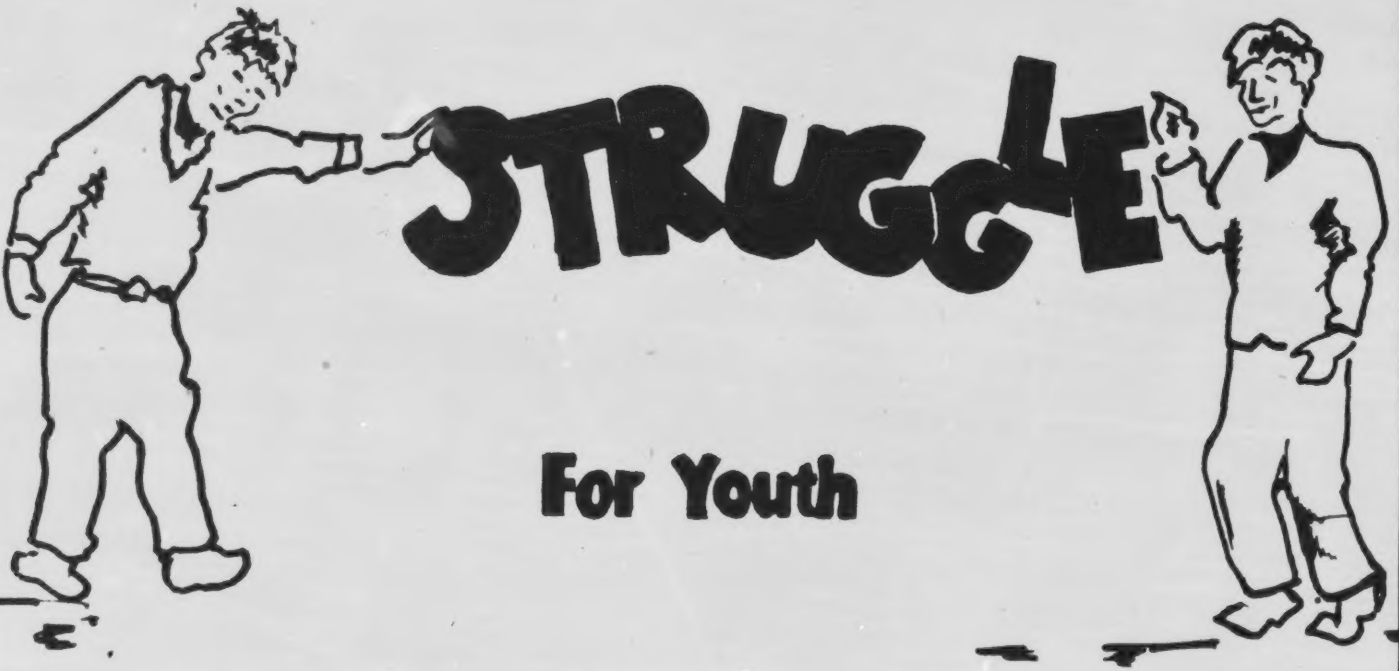
FACTORS THAT ISOLATE YOUTH
FROM SOCIETY

- FRAGMENTATION OF FAMILY—NUCLEAR FAMILIES
- SEPARATION OF RESIDENCE FROM BUSINESS AREAS
- DISAPPEARANCE OF NEIGHBORHOODS
- OCCUPATIONAL MOBILITY
- OUTDATED CHILD LABOR LAWS
- CONSOLIDATED SCHOOLS—EDUCATIONAL "PARKS"
- ISOLATED WORK AREAS
- DIVORCE RATES
- LACK OF "RITES OF PASSAGE" INTO ADULTHOOD

the **Educational Dilemma**: identifying priorities

1. **SPECIFIC JOB TRAINING?**
   (i.e., vocational education)
2. **FUNDAMENTAL SKILLS PREPARATION?**
   (i.e., back to basics)
3. **PREPARATION FOR MORE SCHOOLING?**
   (i.e., getting ready for college)
4. **WHAT NEXT?**

Transition To Adult Work World Is A



For Youth

⇒ LACK INFORMATION ⇐

⇒ LACK SKILLS ⇐

⇒ LACK VALUES AND ⇐
ATTITUDES NECESSARY
FOR OCCUPATIONAL LIFE

STRAIGHT ANSWERS ON CAREER EDUCATION*

Kenneth B. Hoyt
Associate Commissioner for Career Education
United States Office of Education
Washington, D. C.

What is career education?

In a generic sense, career education consists of all the activities and experiences through which individuals prepare themselves for and engage in work - paid or unpaid - during their lives. As a response to a call for educational reform, career education seeks to make preparation for work both a prominent and a permanent goal of American education at all levels. By doing so, it hopes to make work - paid or unpaid - possible, meaningful, and satisfying for each individual.

How does career education differ from vocational education?

1. Career education includes career awareness, exploration, decision making, preparation, entry, and advancement. Vocational education has only one of these components - career preparation - as its main thrust.

2. Career education is for all persons, whereas vocational education, as it now exists, concentrates primarily on people seeking vocational-technical education below the baccalaureate degree level.

3. Career education emphasizes both paid and unpaid work in the lives of individuals, whereas vocational education emphasizes preparation for work in the world of paid employment.

Why was the launching of career education considered necessary?

First, for the last several years, people have been demanding that the formal educational system change in ways that will enable students, when they leave the educational system, to be more successful in finding and engaging in satisfying, worthwhile work. Second, the meaningfulness of work in the life-styles of Americans is declining, and this has serious consequences for productivity.

What are the characteristics of a good career education program?

First, the program involves all students at all educational levels. Second, it is coordinated to reflect what is known about career development. Third, it is collaborative, both in terms of relationships existing within the educational system and in terms of relationships involving the educational system and all other phases of business and society. Finally, it is learner-centered in goals, basic methodology, and evaluation.

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*This article was published in 1975 in Today's Education and is reproduced with the permission of the publisher.

Should career education be taught as a separate subject?

No. It should be viewed as an additional way of motivating students to learn and as an alternative classroom methodology for teacher use.

Is career education necessary at the elementary level?

Yes. Work values as part of one's personal value system cannot be ignored during the elementary school years. To ignore the teaching of good work habits until secondary school would be disastrous for many students. Realizing the crucial importance of basic academic skills in the world of work should motivate elementary school students to learn such basic skills better.

Is career education just an approach to a good teaching technique?

No. As an ingredient in the teaching-learning process, a good teaching technique represents only one component of a comprehensive career education program. To emphasize the use of career education only as a teaching technique is to disregard its collaborative nature. When education as preparation for work truly becomes a prominent and a permanent goal of all American education, the term career education can be dropped. I believe that day is years away.

What about the arts and humanities in career education?

They are crucially important for two reasons. First, they are, for many persons, a part of the world of paid employment and so must be included as career options for students. Second, the dehumanizing nature of many jobs in today's world of paid employment makes it vital that persons be able to use the arts and humanities for some of the work they choose to do in their leisure time.

How can teachers get career education started in their school?

Getting started involves (a) clear knowledge of the subject matter they are trying to teach, (b) a list of basic career education concepts from which they can select, (c) knowledge of available community resources, and (d) ingenuity and creativity. When teachers are armed with these things, career education offers them a means of using their abilities in ways that help students learn more through utilizing a variety of resources in addition to the usual textbook and curriculum guide.

Of course, it is better if the entire school is involved in the career education effort. But if individual teachers wait for that to happen, they may never begin.

Is career education just another educational fad?

No. The call for career education, which has come from parents, students, and the general public, will not go away until it has been answered. Since educators were not the ones who issued the call, they cannot make it go away except through actions responding to the call.

Is career education growing?

Yes. Approximately 5,000 of the 17,000 school districts in the United States have begun some career education activities.

That seems to me to represent fantastic growth when one considers that (a) the term career education wasn't coined until a little over three years ago; (b) only about 250 federally funded career education programs have existed in local school districts; and (c) no federal career education law existed prior to 1974 and, even now, no specific career education funds have been available from USOE.

In my opinion, one of career education's current problems is that because it has grown too fast the quantity of our efforts has far exceeded their ability.

What about the costs of career education to the school? Where will the money come from?

Over 90 percent of the costs of education involve either buildings and equipment or staff salaries. Since, in career education, we are asking for neither new buildings nor greatly increased staff personnel, we aren't anticipating the need for large amounts of money. I hope the costs of career education will continue to come mostly from local and state funds, not from federal.

If such a program is launched, won't classroom teachers need in-service education?

In-service education represents, in my opinion, the largest single cost required for effective career education. My feeling is that all teachers should be exposed to initial in-service training in career education to acquaint them with its basic nature, goals, and methodology. The most important kind of in-service education comes when teachers try to infuse career education in the teaching-learning process. Only teachers who volunteer to undergo this form of in-service education should be involved.

What about preservice education?

It will be essential to the long-run success of career education. Michigan, Louisiana, Washington, and Arizona have made good initial efforts to infuse career education into preservice teacher education programs. To me, important as preservice education is to career education, it represents a lower priority than in-service education at the present time.

Ideally, preservice and in-service career education should be going on simultaneously. We must realize, however, that the primary expertise in career education is now in our local schools, not in teacher-education institutions. Teacher educators have much to learn from leading career education practitioners if they are to infuse career education concepts into preservice teacher education programs. Many teacher educators are beginning to do so now.

How do students, teachers, and the public react to career education?

Reactions seem to be positive and enthusiastic. For example, in Attitudes Toward Career Education, published by Policy Studies in Education, New York City, 73 percent of parents surveyed agreed that students should be told about jobs and job requirements during the study of every subject in every grade. And in the fifth Gallup Poll of Public Attitudes Toward Education, 90 percent of those polled said public schools should give more emphasis to a study of trades, professions, and businesses to help students decide on their careers. Many teachers tell me that using a career education approach has made teaching exciting and meaningful to them. I have also heard favorable comments from hundreds of equally enthusiastic students.

What do you foresee as the future of career education?

Its future depends first, and foremost, on how effectively it is now implemented.

It will continue to grow and flourish for many years if we can: (a) keep its focus on education as preparation for work, (b) continue to emphasize its collaborative nature, (c) maintain an adequate level of funding, (d) recognize that we can all be involved in the action, (e) concentrate on how much help students receive rather than on who received the credit for helping, and (f) devote conscientious efforts toward evaluating the effectiveness of career education for all persons at all levels of education in all kinds of educational settings.

If we fail in any of these tasks, career education could and should disappear in a relatively few years. The key to the future of career education is the teacher, for the classroom is where all of these things either come together or fall apart.

For information on specific career education programs, write to Dr. Kenneth B. Hoyt, Associate Commissioner for Career Education, U. S. Office of Education, Washington, D. C. 20202.

THE STATUS OF YOUTH, EDUCATION, AND WORK*

THE YOUTH UNEMPLOYMENT RATE IN THIS COUNTRY IS A STARTLING 20 PERCENT, A STATISTIC THAT IS TRULY MEANINGFUL, HOWEVER, ONLY BY COMPARISON.

- IT IS ALMOST THREE TIMES AS HIGH AS THE RATE FOR ADULTS. IT IS TWICE AS HIGH AS IT WAS WHEN THESE FIGURES WERE FIRST COLLECTED IN 1947. IT IS UP FROM 12 PERCENT TEN YEARS AGO. UNEMPLOYMENT AMONG TEENAGERS (SIXTEEN TO NINETEEN) WAS 15 PERCENT IN FEBRUARY 1974, AND 19.9 PERCENT IN FEBRUARY 1975.

- THE UNEMPLOYMENT RATE IS TWICE AS HIGH AMONG THOSE WHO ARE BOTH YOUNG AND BLACK, OR OF MEXICAN, PUERTO RICAN, OR AMERICAN DESCENT. AMONG THESE, THE RATE NOW EXCEEDS 40 PERCENT.

- IN ANY PARTICULAR MONTH BETWEEN A MILLION AND A HALF AND 2 MILLION TEENAGERS ARE LOOKING FOR WORK AND UNABLE TO FIND IT -- WHICH IS THE ONLY CIRCUMSTANCE THAT THE CURRENT MEASUREMENT SYSTEM DEFINES AS "UNEMPLOYED."

- THESE YOUTH FIGURES GET BURIED IN THE MONTHLY REPORTS OF THE COUNTRY'S OVERALL SITUATION. IN THE MINDS OF MOST PEOPLE THE PICTURE OF UNEMPLOYMENT IS OF A HEAD OF A FAMILY WHO LOSES HIS OR HER JOB, AND THIS INDEED IS GENERALLY THE MORE SERIOUS SITUATION. BUT ALMOST A QUARTER OF ALL UNEMPLOYMENT IN THE UNITED STATES IS AMONG TEENAGERS. OVER A THIRD IS AMONG THOSE UNDER TWENTY-TWO, ALTHOUGH THEY MAKE UP ONLY ONE SEVENTH OF THE WORK FORCE.

- THE BUREAU OF LABOR STATISTICS NOW REPORTS THAT ALMOST 40 PERCENT OF SIXTEEN-TO-NINETEEN-YEAR-OLD BOYS AND GIRLS WHO ARE IN SCHOOL ARE ALSO EITHER WORKING OR LOOKING FOR WORK, IN MOST CASES PART-TIME JOBS.

- THIS REPORT IS BASED ON MONTHLY INTERVIEWS WITH PARENTS DRAWN FROM A NATIONAL SAMPLE OF HOUSEHOLD SURVEYS. INTERESTINGLY, A SURVEY BASED ON INTERVIEWS WITH YOUNG PEOPLE THEMSELVES SHOWS EVEN MORE WORK ACTIVITY AMONG THOSE IN SCHOOL -- AT PERCENTAGES BETWEEN 50 PERCENT AND 60 PERCENT, DEPENDING LARGELY ON AGE AND RACE.

- THESE CURRENT, OR VERY RECENT FIGURES ARE MARKEDLY HIGHER, ESPECIALLY FOR GIRLS, THAN THEY WERE TEN AND FIFTEEN YEARS AGO. THIRTY-NINE PERCENT OF ALL SIXTEEN-TO-SEVENTEEN-YEAR-OLD-BOYS IN SCHOOL IN 1970 WERE ALSO IN THE WORK FORCE (THAT IS, EITHER WORKING OR LOOKING FOR WORK): UP FROM 34 PERCENT IN 1960. AMONG EIGHTEEN AND NINETEEN-YEAR-OLD BOYS, THE 1970 FIGURE WAS 41 PERCENT, UP FROM 35 PERCENT. THE INCREASES AMONG GIRLS HAVE BEEN EVEN LARGER: UP FROM 23 PERCENT IN 1960 TO 34 PERCENT IN 1970 FOR SIXTEEN-TO-SEVENTEEN-YEAR-OLDS, AND FROM 28 PERCENT TO 38 PERCENT FOR EIGHTEEN-TO-NINETEEN-YEAR-OLDS.

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*These statements were derived from The Boundless Resource - A Prospectus for an Education-Work Policy by Willard Wirtz, published by the National Manpower Institute in 1975, and reprinted here with permission of the publisher.

HISTORICAL EVOLUTION OF CAREER EDUCATION*

Educators have always sought to meet the needs of society by developing programs to foster democracy, develop independent and creative thinkers, help students make social adjustments, prepare the population vocationally, teach the valuable use of leisure time, and build ethical character.

EARLY LEADERS

Throughout American history, there have been persons interested in the goals of education who maintained that schools should help prepare youth for a life which includes work.

William Penn, in Frame of Government, written in the 17th century, stated that children should be taught a trade, e.g., mathematics, shipbuilding, or agriculture.

In the next century, Horace Mann and John Dewey further expounded on this concept. Horace Mann led the struggle to organize the curriculum around civic, social, and character needs of all pupils. He argued that education should be universal, non-sectarian, and free. Dewey theorized that acquaintance with social institutions and industrial processes takes place by actual living. He advocated that education include play, construction, use of tools, community involvement and what we now refer to as "hands-on" activities.

Jane Addams (1860-1935) was influential in getting industrial education and vocational guidance into the public school curriculum. She worked with John Dewey on the occupation based Laboratory School of the University of Chicago and was active in supporting the work of the National Society for the Promotion of Industrial Education. She proposed that schools provide specific learning experiences that "would relate the 14-year-old boy to the industrial community in which he lives..."

Frank Parsons and Florence B. Stratemeyer, more contemporary educators, suggested that schools provide youth with occupational counseling. Parsons (Choosing a Vocation, 1909) advocated that schools interpret youth's attitudes and interests and correlate them with various career opportunities. He argued for intense career counseling by teachers and counselors.

Stratemeyer, an author as well as educator, stated that, "Two of the most persistent life situations deal with using leisure wisely and earning a living... Dealing with these problems provides opportunities for individuals to develop personal interests and vocational competencies in keeping with their special talents."

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*This handout is reprinted from: Staff Development in Career Education for the Elementary School: Module I - Career Education: An Integrating Process. The National Center for Research in Vocational Education, The Ohio State University, 1975.

HISTORICAL LEGISLATION

Since the Morrill Act of 1862, there have been many federal efforts to promote vocational education through legislation. Notably, the 1917 Smith-Hughes Act provided federal categorical support for agricultural, home economics, and industrial education. Several recent efforts to legislate educational change have had a direct impact on career education.

> The National Defense Education Act, 1958, provided funds for improving science and mathematics preparation of bright secondary school youth in order to provide career options in those fields.
>
> The Manpower Development and Training Act, 1960, provided compensatory education and training for out-of-school youth and adults. Vocational training was provided in business education, industrial arts, vocational education (automotive) and remedial work in English and mathematics.
>
> The Vocational Education Act of 1963 (amended in 1968) was a massive attempt to revitalize vocational education and bring training to handicapped and disadvantaged persons, and others who could benefit from it. The underlying intent of the Vocational Education Act was to provide all citizens with vocational training or retraining in the local community. Vocational education was envisioned as the fusing of academic and practical learning experiences to provide each citizen a marketable skill in the work world.

RECENT DEVELOPMENTS

The early seventies brought about not only additional legislation but other thrusts toward career education as it is presently defined.

Even before Sidney Marland's challenge of 1971 in which he lamented the lack of occupational training available for all students, funding had become available for fifty K-14 exemplary projects in vocational education. By the end of 1971, the four national models for career education were in the early stages of development.

The fifteen occupational clusters advocated by USOE had come into being by 1972, at which time federal support was up to $15 million. The National Institute of Education (NIE) was created in 1972 by amendments to the Vocational Education Act of 1963. The following year, NIE created a "Forward Plan for Career Education Research and Development." A career education clearinghouse and The Center for Career Education are recent "offsprings" of NIE.

The most recent federal legislation enacted to support career education (the Hathaway Amendment of 1974) not only provides for $15,000,000 to be allocated yearly through July 1, 1978, but also creates an Office of Career Education to be headed by a Director of Career Education who will report directly to the U. S. Commissioner of Education. The amendment, which provides for a National Advisory Council and for grants to state and local education agencies, is the first congressional endorsement of career education.

In late 1974, the Office of Education released a policy paper, its first comprehensive conceptual statement on career education. This paper outlines:

1. Conditions calling for educational reform
2. A rationale for career education
3. A generic definition of career education
4. Programmatic assumptions of career education
5. Career education tasks (personnel roles, etc.)
6. Learner outcomes
7. Basic educational changes championed by career education

STATE EFFORTS

Given federal initiative, it is not surprising that several states have enacted legislation for the proposed development of career education programs. By early 1973, planning efforts for career education were a top priority in nearly every state educational agency, as evidenced by policy statements and resolutions of state boards of education and in statements made by chief state school officers. Planning groups generally were organized as interdisciplinary task forces of five to twenty-five persons from various segments of the state education agency. Most of these task forces served as steering committees on career education for the purpose of developing guidelines for career education in local school units.

Several representative examples of states' efforts follow. In 1971, Senate Bill 5 in Arizona made available approximately $2 million for initiating statewide activities in career education. The Arizona Department of Education has developed several slide presentations for viewing by groups around the state. A career education brochure has been printed and distributed, and feature stories have appeared in local newspapers. In addition, a career education television series is being produced for airing on local educational stations.

Also in 1971, California legislators approved a bill which states that every individual in the state of California who leaves school should be prepared to enter the world of work; every student who graduates from any state-supported school should have sufficient marketable skills for legitimate remunerative employment; and every qualified and eligible adult citizen should be afforded an educational opportunity to become suitably employed in some remunerative field.

The California Career Education Task Force has developed a "Career Education Operation Plan" for that state and also guides for the implementation of the concepts of career education. The guides will be revised after being tried in local schools. Topics dealt with in several guides are: early childhood education, attitude development, educational awareness, economic awareness, career exploration, career planning and decision-making skill development, career orientation and adult education.

Ohio's career development program K-10 is designed to provide students with the necessary information and developmental experiences to prepare them for living in society. The K-10 program includes these components: career motivation for K-6, career orientation for 7-8, and career exploration for 9-10. These programs prepare the student to make choices for pre-professional or vocational education. Curriculum guides for each of the three components have been developed for use in local school districts. Thirty pilot programs in career education are already in operation.

Since May 1970, a task force in the state of Delaware has been working to develop procedures for a comprehensive approach to statewide implementation. The State Board of Education, in a master plan for career education, declared five priorities: (a) to seek increased state appropriations, (b) to allocate funds for additional career guidance and placement counselors, (c) to expand vocational youth organizations, (d) to develop mobile career counseling centers, and (e) to retrain teachers. With a grant of $345,000, Delaware plans to start designing a model system for integrating academic and vocational education. Delaware has set September 1976, as its target date for implementing career education in every grade.

Several states have held statewide conferences on career education to make people aware of the concept. Florida, for example, held a conference for selected businessmen, educators, legislators, and representatives of governmental and proprietary agencies, organizations, and institutions to inform them of the concepts and proposed outcomes of career education programs. Then district and county conferences followed.

And finally and most significantly, the first national conference of state coordinators of career education was held (in October 1974) at The Center for Vocational Education at The Ohio State University. The conference proceedings included a closed circuit television address by Terrel H. Bell, U. S. Commissioner of Education. Bell's address emphasized support for local and state career education efforts by both government and non-government groups.

6C

U.S.O.E. POLICY PAPER ON CAREER EDUCATION*

AN INTRODUCTION TO CAREER EDUCATION

Career education represents a response to a call for educational reform. This call has arisen from a variety of sources, each of which has voiced dissatisfaction with American education as it currently exists. Such sources include students, parents, the business-industry-labor community, out-of-school youth and adults, minorities, the disadvantaged, and the general public. While their specific concerns vary, all seem to agree that American education is in need of major reform at all levels. Career education is properly viewed as one of several possible responses that could be given to this call.

Conditions Calling for Educational Reform

The prime criticisms of American education that career education seeks to correct include the following:

1. Too many persons leaving our educational system are deficient in the basic academic skills required for adaptability in today's rapidly changing society.

2. Too many students fail to see meaningful relationships between what they are being asked to learn in school and what they will do when they leave the educational system. This is true of both those who remain to graduate and those who drop out of the educational system.

3. American education, as currently structured, best meets the educational needs of that minority of persons who will someday become college graduates. It fails to place equal emphasis on meeting the educational needs of that vast majority of students who will never be college graduates.

4. American education has not kept pace with the rapidity of change in the post-industrial occupational society. As a result, when worker qualifications are compared with job requirements, we find overeducated and undereducated workers are present in large numbers. Both the boredom of the overeducated worker and the frustration of the undereducated worker have contributed to growing worker alienation in the total occupational society.

5. Too many persons leave our educational system at both the secondary and collegiate levels unequipped with the vocational skills, the self-understanding and career decision-making skills, or the work attitudes that are essential for making a successful transition from school to work.

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*The following pages of this handout are reprinted from the DHEW Publication No. (OE) 75-00504 entitled: An Introduction to Career Education: A Policy Paper of the U. S. Office of Education. Washington, D. C., 1975.

6. The growing need for the presence of women in the work force has not been reflected adequately in either the educational or the career options typically pictured for girls enrolled in our educational system.

7. The growing needs for continuing and recurrent education of adults are not being met adequately by our current systems of public education.

8. Insufficient attention has been given to learning opportunities which exist outside the structure of formal education and are increasingly needed by both youth and adults in our society.

9. The general public, including parents and the business-industry-labor community, has not been given an adequate role in formulation of educational policy.

10. American education, as currently structured, does not adequately meet the needs of minority or economically disadvantaged persons in our society.

11. Post high school education has given insufficient emphasis to educational programs at the sub-baccalaureate degree level.

It is both important and proper that these criticisms be answered, in part, through pointing to the significant accomplishments of American education. Growth in both the quality and the quantity of American education must be used as a perspective for answering the critics. Such a perspective, of course, is not in itself an answer. The answers given to such criticisms must take the form of either refutation of the criticisms or constructive educational changes designed to alleviate those conditions being criticized. The prospects of refuting these criticisms, to the satisfaction of the general public, seem slight. Thus, an action program of educational reform appears to be needed. Career education represents one such program.

Answering the Call for Educational Reform: The Rationale of Career Education

Each of the 11 criticisms cited centers on relationships between education and lifestyles of individuals. Any comprehensive program of educational reform designed to answer such criticisms must be based on some common element inherent in each of them. Such a common element must be one that can logically be related to the needs of all persons involved in education. It must be related to the societal goals for education as well as to the individual personal growth goals of learners.

One such element that seems appropriate to consider for use is the concept of work. For purposes of this rationale, "work" has this specific definition:

> "Work" is conscious effort, other than that involved in activities whose primary purpose is either coping or relaxation, aimed at producing benefits for oneself and/or for oneself and others.

This definition, which includes both paid and unpaid work, speaks to the survival need of society for productivity. It also speaks to the personal need of all individuals to find meaning in their lives through their accomplishments. It provides one possible societal basis for supporting education. Simultaneously, it provides one clearly recognizable reason for both educators and students to engage in education. It emphasizes the goal of education, as preparation for work, in ways that neither demean nor detract from other worthy goals of education. It is a concept which, while obviously encompassing economic man, reaches beyond to the broader aspects of productivity in one's total life style--including leisure time.

As such, it serves as a universally common answer to all who ask, "Why should I learn?" The fact that it may represent, for any given individual, neither the only answer nor necessarily the most important answer to this question is irrelevant to this claim for commonality.

Proposals for educational change made in response to any criticism or combination of criticisms cited above can all be accomplished through use of the concept of work. It accommodates the productivity goals of society in ways that emphasize the humanizing goals of American education. It is this quality that lends credence to career education as a vehicle for educational reform.

A Generic Definition of Career Education

In a generic sense, the definition of "career education" must obviously be derived from definitions of the words "career" and "education." In seeking a generic definition for career education, these words are defined as follows:

> "Career" is the totality of work one does in his or her lifetime.
>
> "Education" is the totality of experiences through which one learns.

Based on these two definitions, "career education" is defined as follows:

> "Career education" is the totality of experiences through which one learns about and prepares to engage in work as part of her or his way of living.

"Career," as defined here, is a developmental concept beginning in the very early years and continuing well into the retirement years. "Education," as defined here, obviously includes more than the formal educational system. Thus, this generic definition of career education is purposely intended to be of a very broad and encompassing nature. At the same time, it is intended to be considerably less than all of life or one's reasons for living.

Basic Concept Assumptions of Career Education

Based on the generic definition of career education and its rationale as cited above, the career education movement has embraced a number of basic concept assumptions. These assumptions include:

1. Since both one's career and one's education extend from the preschool through the retirement years, career education must also span almost the entire life cycle.

2. The concept of productivity is central to the definition of work and so to the entire concept of career education.

3. Since "work" includes unpaid activities as well as paid employment, career education's concerns, in addition to its prime emphasis on paid employment, extend to the work of the student as a learner, to the growing numbers of volunteer workers in our society, to the work of the full-time homemaker, and to work activities in which one engages as part of leisure and/or recreational time.

4. The cosmopolitan nature of today's society demands that career education embrace a multiplicity of work values, rather than a single work ethic, as a means of helping each individual answer the question, "Why should I work?"

5. Both one's career and one's education are best viewed in a developmental rather than in a fragmented sense.

6. Career education is for all persons--including the young and old, the mentally handicapped and the intellectually gifted, the poor and the wealthy, males and females, students in elementary schools and in graduate colleges.

7. The societal objectives of career education are to help all individuals to: (a) want to work, (b) acquire the skills necessary for work in these times, and (c) engage in work that is satisfying to the individual and beneficial to society.

8. The individualistic goals of career education are to make work (a) possible, (b) meaningful, and (c) satisfying for each individual throughout his or her lifetime.

9. Protection of the individual's freedom to choose--and assistance in making and implementing career decisions--are of central concern to career education.

10. The expertise required for implementing career education exists in many parts of society and is not limited to those employed in formal education.

Taken as a whole, these 10 concept assumptions represent a philosophical base for current career education efforts. Career education makes no pretense of picturing these assumptions as anything more than the simple beliefs they represent. Certainly, each is debatable and none has sufficient acceptance as yet to be regarded as an educational truism.

Programmatic Assumptions of Career Education

Operationally, career education programs have been initiated based on a combination of research evidence and pragmatic observations. While subject to change and/or modification based on further research efforts, the following programmatic assumptions are intended to serve as examples of the truth as we presently know it. Each is stated, insofar as possible, in the form of a testable hypothesis. By doing so, it is hoped that further research will be stimulated.

1. If students can see relationships between what they are being asked to learn in school and the world of work, they will be motivated to learn more in school.

2. No single learning strategy exists that is best for all students. For example, some students will learn best by reading books, and others will learn best by combining reading with other kinds of learning activities. A comprehensive educational program should provide a series of alternative learning strategies and learning environments for students.

3. Basic academic skills, a personally meaningful set of work values, and good work habits represent adaptability tools needed by all persons who choose to work in today's rapidly changing occupational society.

4. Increasingly, entry into today's occupational society demands that those who seek employment possess a specific set of vocational skills. Unskilled labor is less and less in demand.

5. Career development, as part of human development, begins in the preschool years and continues into the retirement years. Its maturational patterns differ from individual to individual.

6. Work values, a part of one's personal value system are developed to a significant degree during the elementary school years and are modifiable during those years.

7. Specific occupational choices represent only one of a number of kinds of choices involved in career development. They can be expected to increase in realism as one moves from childhood into adulthood and, to some degree, to be modifiable during most of one's adult years.

8. Occupational decision making is accomplished through the dynamic interaction of limiting and enhancing factors both within the individual and in his present and proposed environment. It is not, in any sense, a simple matching of individuals with jobs.

9. Occupational stereotyping hinders full freedom of occupational choice both for females and for minority persons. These restrictions can be reduced, to some extent, through programmatic intervention strategies begun in the early childhood years.

10. Parent socioeconomic status acts as a limitation on occupational choices considered by children. This limitation can be reduced, to a degree, by program intervention strategies begun in the early years.

11. A positive relationship exists between education and occupational competence, but the optimum amount and kind of education required as preparation for work varies greatly from occupation to occupation.

12. The same general strategies utilized in reducing worker alienation in industry can be used to reduce worker alienation among pupils and teachers in the classroom.

13. While some persons will find themselves able to meet their human needs for accomplishment through work in their places of paid employment, others will find it necessary to meet this need through work in which they engage during their leisure time.

14. Career decision making skills, job-hunting skills, and job-getting skills can be taught to and learned by almost everyone. Individuals can effectively use such skills, once learned, to enhance their career development.

15. Excessive deprivation in any aspect of human growth and development can retard career development. For persons suffering such deprivation, special variations in career development programs will be required.

16. An effective means of helping individuals discover both who they are (in a self-concept sense) and why they are (in a personal awareness sense) is through helping them discover what they can accomplish in the work they do.

17. The attitudes of parents toward work and toward education act as powerful influences on the career development of their children. Such parental attitudes are modifiable through programmatic intervention strategies.

18. The processes of occupational decision making and occupational preparation will probably be repeated more than once for most adults in today's society.

19. One's style of living is significantly influenced by the occupations he or she engages in at various times in life.

20. Relationships between education and work can be made more meaningful through infusion into subject matter than if taught as a separate body of knowledge.

21. It can increasingly be expected that education and work will be interwoven at various times in the lives of most individuals rather than occur in a single sequential pattern.

22. Decisions individuals make about the work they do are considerably broader and more encompassing in nature than are decisions made regarding the occupations in which they are employed.

23. Good work habits and positive attitudes toward work can be taught effectively to most individuals. Assimilation of such knowledge is most effective if begun in the early childhood years.

24. The basis on which work can become a personally meaningful part of one's life will vary greatly from individual to individual. No single approach can be expected to meet with universal success.

25. While economic return can almost always be expected to be a significant factor in decisions individuals make about occupations, it may not be a significant factor in many decisions individuals make about their total pattern of work.

This list is intended to be illustrative, rather than comprehensive, in nature. The prime point is that, in formulating action plans for career education, we are not, even at this stage, forced to operate out of complete ignorance. While much more research is obviously needed, we know enough right now to justify and to undertake the organization, installation, and implementation of comprehensive career education programs. The call for educational reform, to which career education seeks to respond, need not and should not wait for further research before we begin to answer it.

Career Education Tasks: Initial Implementation

To the greatest extent possible, initiation of comprehensive career education programs should be undertaken utilizing existing personnel and existing physical facilities. The assumption of new roles by some staff members can be accomplished in most educational systems with no serious loss in total institutional productivity. While the emphasis and methodology will vary considerably from one educational level to another (e.g., the emphasis on vocational education will be minimal at the elementary school level and the emphasis on the home and family component will be minimal at the adult education level), the following kinds of tasks are essential for initial implementation of a comprehensive career education effort.

A. All classroom teachers will:

   1. Devise and/or locate methods and materials designed to help pupils understand and appreciate the career implications of the subject matter being taught.

   2. Utilize career-oriented methods and materials in the instructional program, where appropriate, as one means of educational motivation.

3. Help pupils acquire and utilize good work habits.

4. Help pupils develop, clarify, and assimilate personally meaningful sets of work values.

5. Integrate, to the fullest extent possible, the programmatic assumptions of career education into their instructional activities and teacher-pupil relationships.

B. Some teachers, in addition, will be charged with:

1. Providing students with specific vocational competencies at a level that will enable them to gain entry into the occupational society.

2. Helping students acquire job-seeking and job-getting skills.

3. Participating in the job-placement process.

4. Helping students acquire decision making skills.

C. The business-labor-industry community will:

1. Provide observational, work experience, and work-study opportunities for students and for those who educate students (teachers, counselors, and school administrators).

2. Serve as career development resource personnel for teachers, counselors, and students.

3. Participate in part-time and full-time job placement programs.

4. Participate actively and positively in programs designed to reduce worker alienation.

5. Participate in career education policy formulation.

D. Counseling and guidance personnel will:

1. Help classroom teachers implement career education in the classroom.

2. Serve, usually with other educational personnel, as liaison between the school and the business-industry-labor community.

3. Serve, usually with other educational personnel, in implementing career education concepts within the home and family structure.

4. Help students in the total career development process, including the making and implementation of career decisions.

5. Participate in part-time and full-time job placement programs and in follow-up studies of former students.

E. The home and family members with whom pupils reside will:

1. Help pupils acquire and practice good work habits.

2. Emphasize development of positive work values and attitudes toward work.

3. Maximize, to the fullest extent possible, career development options and opportunities for themselves and for their children.

F. Educational administrators and school boards will:

1. Emphasize career education as a priority goal.

2. Provide leadership and direction to the career education program.

3. Involve the widest possible community participation in career education policy decision making.

4. Provide the time, materials, and finances required for implementing the career education program.

5. Initiate curriculum revision designed to integrate academic, general, and vocational education into an expanded set of educational opportunities available to all students.

Until and unless performance of these tasks is underway, we cannot say that implementation of a comprehensive career education program has taken place. While bits and pieces of career education are obvious in many educational systems at present, very few have fully implemented these initial tasks. American education cannot be credited with responding to the demands for educational reform by simply endorsing the career education concept. Only when action programs have been initiated can we truly say a response has been made.

Learner Outcomes for Career Education

Like the career education tasks outlined above, specific learner outcomes for career education will vary in emphasis from one educational level to another. For purposes of forming a broad basis for evaluating the effectiveness of career education efforts, a listing of developmental outcome goals is essential. In this sense, career education seeks to produce individuals who, when they leave school (at any age or at any level), are:

1. Competent in the basic academic skills required for adaptability in our rapidly changing society.
2. Equipped with good work habits.
3. Capable of choosing and who have chosen a personally meaningful set of work values that foster in them a desire to work.
4. Equipped with career decision making skills, job-hunting skills, and job-getting skills.
5. Equipped with vocational personal skills at a level that will allow them to gain entry into and attain a degree of success in the occupational society.
6. Equipped with career decisions based on the widest possible set of data concerning themselves and their educational-vocational opportunities.
7. Aware of means available to them for continuing and recurrent education once they have left the formal system of schooling.
8. Successful in being placed in a paid occupation, in further education, or in a vocation consistent with their current career development.
9. Successful in incorporating work values into their total personal value structure in such a way that they are able to choose what, for them, is a desirable lifestyle.

It is important to note that these learner outcome goals are intended to apply to persons leaving the formal educational system for the world of work. They are not intended to be applicable whenever the person leaves a particular school. For some persons, then, these goals become applicable when they leave the secondary school. For others, it will be when they have left post high school occupational education programs. For still others, these goals need not be applied, in toto, until they have left a college or university setting. Thus, the applicability of these learner outcome goals will vary from individual to individual as well as from one level of education to another. This is consistent with the developmental nature, and the basic assumption of individual differences inherent in the concept of career education.

Basic Educational Changes Championed by Career Education

The actions of students, educational personnel, parents, and members of the business-industry-labor community, no matter how well intentioned, cannot bring about educational reform so long as the basic policies of American education remain unchanged. None of the basic educational policy changes advocated by career education is either new or untested. Yet, none has become common practice in a majority of educational systems. No one of these changes can or should come quickly. Each will require considerable study, debate, and public acceptance before it is initiated.

In spite of the obvious difficulties and dangers involved, each of the following basic educational policy changes is championed by the career education movement:

1. Substantial increases in the quantity, quality, and variety of vocational education offerings at the secondary school level and of occupational education offerings at the post-secondary school level.

2. Increases in the number and variety of educational course options available to students with a de-emphasis on the presence of clearly differentiated college preparatory, general education, and vocational education curriculums at the secondary school level.

3. The installation of performance evaluation, as an alternative to the strict time requirements imposed by the traditional Carnegie unit, as a means of assessing and certifying educational accomplishment.

4. The installation of systems for granting educational credit for learning that takes place outside the walls of the school.

5. Increasing use of noncertified personnel from the business-industry-labor community as educational resource persons in the educational system's total instructional program.

6. The creation of an open entry-open exit educational system that allows students to combine schooling with work in ways that fit their needs and educational motivations.

7. Substantial increases in programs of adult and recurrent education as a responsibility of the public school educational system.

8. Creation of the year-round public school system that provides multiple points during any 12-month period in which a student will leave the educational system.

9. Major overhaul of teacher education programs and graduate programs in education aimed at incorporating the career education concepts, skills, and methodologies.

10. Substantial increases in the career guidance, counseling, placement, and follow-up functions as part of American education.

11. Substantial increases in program and schedule flexibility that allow classroom teachers, at all levels, greater autonomy and freedom to choose educational strategies and devise methods and materials they determine to be effective in increasing pupil achievement.

12. Increased utilization of educational technology for gathering, processing, and disseminating knowledge required in the teaching-learning process.

13. Increased participation by students, teachers, parents, and members of the business-industry-labor community in educational policy making.

14. Increased participation by formal educational institutions in comprehensive community educational and human services efforts.

There are three basic implications inherent in the kinds of educational changes cited here which must be made very explicit.

First, we are saying that while initial implementation of career education programs will be relatively inexpensive, total educational reform is going to be expensive. No matter how much current educational budgets are realigned, there is no way that this total reform can be carried out with sums now being expended for the public school and public higher education systems.

Second, we are saying that a substantial portion of the additional funds required could be found in remedial and alternative educational systems that, supported with tax dollars, now exist outside the structure of our public school system and our system of public postsecondary education. Career education represents a movement dedicated to avoiding the creation of a dual system of public education in the United States. A single comprehensive educational system will be both less expensive, in the long run, and more beneficial in meeting educational needs of all persons--youth and adults--in this society.

Third, we are saying that the days of educational isolationism are past. It is time that our formal educational system joins forces with all other segments of the total society, including both community service agencies and the business-industry-labor community, in a comprehensive effort to meet the varied and continuing educational needs of both youth and adults. Rather than complain about or compete with other kinds of educational opportunities, all must collaborate in providing appropriate educational opportunities for all citizens.

Unless these kinds of long-range educational reforms are made a basic part of the career education strategy, it is unlikely that the kinds of criticisms that led to establishment of career education will be effectively answered.

Conclusion

As a response to a call for educational reform, career education has operated as a paper priority of American education for the last 3 years. During this period, it has demonstrated its acceptability as a direction for change to both educators and to the general public. Its widespread application to all of American education has not yet taken place. If successful efforts in this direction can now be made, the result should be complete integration of career education concepts into the total fabric of all American education. When this has been accomplished, the result should be abandonment of the term "career education" and adoption of some other major direction for educational change. The call for educational reform, to which career education seeks to respond, is still strong and persistent across the land. That call can no longer be ignored. Career education stands ready to serve as a vehicle for answering the call. It is time that this vehicle be used.

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SESSION TWO
INTRODUCTION TO CAREER EDUCATION
(PART TWO)

OBJECTIVES:
1. The participants will acknowledge a personal commitment toward career education after completing several personalized career development experiences.
2. The participants will participate in a discussion of a comprehensive career education program and describe how that program would function in their school systems.

HIGH-STRUCTURE GUIDELINES	LOW-STRUCTURE GUIDELINES
1. Distribute the transferable skills handout. Lead a class discussion of the meaning of transferable skills.	1. Distribute the transferable skills handout and D.O.T. Appendix and ask students to discuss what this means to them, working in small groups.
2. Distribute the "Life Planning Activities" handout and ask students to use 10 minutes to complete Activity II - their self-description.	2. Ask each student in the class to write a brief anecdote of a personal experience they have had in their life of which they were especially proud. (10 minutes)
3. Coordinate a class discussion in which each person presents his/her self-description, and receives feedback from the group.	3. In groups of 3, have each student spend 10 minutes telling his/her story to the group. The group should then tell that person the transferable skills used in completing that experience. (Total time - 30 minutes)
4. Coordinate a discussion of the relationship of these self-descriptions to the transferable skills handout, and the D.O.T. Appendix. Encourage students to discuss their transferable skills.	4. Have each group share its results with the class, describing the skills they have used.
5. Distribute the "What Can I Do?" activity sheet and ask each student to take 15 minutes to complete it.	5. Using the same group, have students work through the "What Can I Do?" activity.

SESSION TWO (Continued)

	HIGH-STRUCTURE GUIDELINES		LOW-STRUCTURE GUIDELINES
6.	Share each member's results with the class.	6.	Share each group's results with the class.
7.	Coordinate a class discussion of the meaning of this experience and the need for schools to address this issue for youth while they are still in school. Encourage personalization of the experience.	7.	Coordinate a class discussion of the meaning of this experience and the need for schools to address this issue for youth while they are still in school. Encourage personalization of the experience.
8.	Using the transparencies provided, lead a class discussion of the need and basic program guidelines for a comprehensive career education program. Encourage class discussion, with your maintenance of direction.	8.	Coordinate a class discussion of the need and basic program guidelines for a comprehensive career education program. Use the career education program handouts.

RESOURCES:
1. Transferable skills handout (3 sheets)
2. D.O.T. Appendix of Occupational Classifications
3. "Life Planning Activities" sheet
4. "What Can I Do?" activity sheet
5. "Career Education Policy Statement"
6. Career education program description transparencies

ASSIGNMENT: Read all handouts in this Chapter.

INTRODUCTION TO CAREER EDUCATION
SESSION TWO - CONTENT OUTLINE

1. Goals of career education
    a. Preparation for further education
    b. Preparation for work
    c. Life-long skill development

2. Sequential development
    a. Career awareness
    b. Career exploration
    c. Career preparation
    d. Career development counseling

3. Essential components of a career education program
    a. Self-concept and self awareness
    b. Attitudes and values related to work
    c. Occupational information
    d. Process skills
    e. Interdisciplinary education
    f. Experiential education
    g. Development from awareness through preparation
    h. Infusion into the ongoing curriculum

4. Delivery system approaches
    a. Infusion
    b. Units of instruction
    c. Interest centers
    d. Separate courses
    e. Separate program

RESOURCE MATERIALS

THE MOST DESIRED TRANSFERABLE SKILLS

In rank order of importance:

Communicating
Working with others
Problem solving
Analyzing/assessing
Planning/layout
Organizing
Managing others
Decision making
Positive work attitude

These are the nine most valued skills sought by employers from their employees. They are presented here in rank order. This list was derived in 1977 from approximately 100 employers and personnel directors.

Information in this handout derived from:

Transferable Skills: The Employer's Viewpoint, published by the National Center for Research in Vocational Education, The Ohio State University, Columbus, Ohio, 1977.

Composite List of Transferable Skills Identified by Conference Participants[2]

Intellectual/Attitudinal

Communicating (44)
Problem Solving (17)
Analyzing/Assessing (15)
Planning/Layout (15)
Organizing (14)
Decision Making (13)
Creativity/Imagination/Innovation
Problem Identification/Definition
Managing One's Own Time
Basic Computation
Logical Thinking
Evaluating
Ability to Relate Common Knowledge or Transfer Experiences
Coping with the Labor Market and Job Movement
Understanding Others
Synthesizing
Marshalling Available Resources
Accommodating Multiple Demands
Judgment
Foresight
Trouble Shooting
Job Awareness
Mechanical Aptitude
Typing
Accounting
Implementing
Self-Understanding, Awareness, Actualization
Situational Analysis
Assessing Environments/Situations
Understanding Human System Interactions
Organizational Savvy
Conceptualization
Generalization
Goal Setting
Controlling
Quantitative Thinking
Dealing with Work Situations
Finance
Tool Usage
Bookkeeping
Artistic Ability
Business Sense
Tolerance of Ambiguity

Interpersonal

Working With, Getting Along With, or Relating to Others (28)
Managing, Directing, or Supervising (13)
Empathizing, or Being Sensitive to Others
Teaching, Training, or Instructing
Counseling
Motivating
Gaining Acceptance, or Building Rapport
Helping, or Cooperating
Cultivating Cooperation
Selling
Accepting Supervision
Delegating
Instilliing Confidence
Team Building

Attitudinal

Diligence, or a Positive Attitude Toward the Value of Work (11)
Receptivity/Flexibility/Adaptability
Determination/Perseverance
Acceptance/Appreciation/Concern for Others
Responsibility
Willingness to Learn
Ambition/Motivation
Self-Confidence
Self-Discipline
Pride
Enthusiasm
Patience
Self-Actualization
Assertivemess
Honesty
Loyalty
Reliability
Risk Taking
Compromising
Kindness

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[2] Items are listed in approximate order of frequency within each category. Most frequently mentioned items are followed by a figure in parenthesis to indicate relative frequency; thus "Communicating" was mentioned about 44 times os often as "Tolerance of Ambuguity."

Source of Table: Transferable Skills: The Employer's Viewpoint. The National Center for Vocational Education, The Ohio State University, Columbus, Ohio, 1977.

EXAMPLES OF DISSIMILAR JOBS AND SKILLS REPORTED AS USEFUL TO BOTH

Dissimilar Jobs	Skills Used in Both
Grill Cook, Guidance Counselor	working with people planning work
Repair Parts Clerk, Personnel Supervisor	speaking with people problem solving priority setting (decision making)
Musician, Training Director	organizing time communications (oral and written)
Construction Equipment Operator, Business Organization Official	relating to and getting along with people
Educator, Ranch Operator	organizing and planning time supervision responsibility credibility computation budgeting relating to people ability to transfer skills
Coal Miner, College Professor	diligence common sense
Entomologist, Group Organizer for Migrant Workers	look at a problem systematically understand people conceptualize environment
Salesman, College Professor	communication analyzing, synthesizing generalizing perceiving individual differences enthusiasm contemplation
Narcotics Agent, Teacher	communications writing analysis of people and situations

Source: Transferable Skills: The Employers Viewpoint. The National Center for Research in Vocational Education, The Ohio State University, Columbus, Ohio, 1977.

DICTIONARY OF OCCUPATIONAL TITLES

Explanation of Relationships Within Data, People, Things Hierarchies

Much of the information in the Dictionary of Occupational Titles is based on the premise that every job requires a worker to function in relation to Data, People, and Things, in varying degrees. These relationships are identified and explained below. They appear in the form of three hierarchies arranged in each instance from the relatively simple to the complex in such a manner that each successive relationship includes those that are simpler and excludes the more complex. The identifications attached to these relationships are referred to as worker functions, and provide standard terminology for use in summarizing exactly what a worker does on the job by means of one or more meaningful verbs.

A job's relationship to Data, People, and Things can be expressed in terms of the highest appropriate function in each hierarchy to which the worker has an occupationally significant relationship, and these functions taken together indicate the total level of complexity at which he must perform. The last three digits of the occupational code numbers in the Dictionary reflect significant relationships to Data, People, and Things, respectively. These last three digits express a job's relationship to Data, People, and Things by identifying the highest appropriate function in each hierarchy to which the job requires the worker to have a significant relationship, as reflected by the following table:

	DATA (4th Digit)		PEOPLE (5th Digit)		THINGS (6th Digit)
0	Synthesizing	0	Mentoring	0	Setting-Up
1	Coordinating	1	Negotiating	1	Precision Working
2	Analyzing	2	Instructing	2	Operating-Controlling
3	Compiling	3	Supervising	3	Driving-Operating
4	Computing	4	Diverting	4	Manipulating
5	Copying	5	Persuading	5	Tending
6	Comparing	6	Speaking-Signaling	6	Feeding-Offbearing
7	No significant	7	Serving	7	Handling
8	relationship	8	No significant relationship	8	No significant relationship

DATA: Information, knowledge, and conceptions, related to data, people, or things, obtained by observation, investigation, interpretation, visualization, mental creation; incapable of being touched; written data take the form of numbers, words, symbols; other data are ideas, concepts, oral verbalization.

0 Synthesizing: Integrating analyses of data to discover facts and/or develop knowledge concepts or interpretations.

1 Coordinating: Determining time, place, and sequence of operations or action to be taken on the basis of analysis of data; executing determinations and/or reporting on events.

2 Analyzing: Examining and evaluating data. Presenting alternative actions in relation to the evaluation is frequently involved.

3 Compiling: Gathering, collating, or classifying information about data, people, or things. Reporting and/or carrying out a prescribed action in relation to the information is frequently involved.

4 Computing: Performing arithmetic operations and reporting on and/or carrying out a prescribed action in relation to them. Does not include counting.

5 Copying: Transcribing, entering, or posting data.

6 Comparing: Judging the readily observable functional, structural, or compositional characteristics (whether similar to or divergent from obvious standards) of data, people, or things.

PEOPLE: Human beings; also animals dealt with on an individual basis as if they were human.

0 Mentoring: Dealing with individuals in terms of their total personality in order to advise, counsel, and/or guide them with regard to problems that may be resolved by legal, scientific, clinical, spiritual, and/or other professional principles.

1 Negotiating: Exchanging ideas, information, and opinions with others to formulate policies and programs and/or arrive jointly at decisions, conclusions, or solutions.

2 Instructing: Teaching subject matter to others, or training others (including animals) through explanation, demonstration, and supervised practice; or making recommendations on the basis of technical disciplines.

3 Supervising: Determining or interpreting work procedures for a group of workers, assigning specific duties to them, maintaining harmonious relations among them, and promoting efficiency.

4 Diverting: Amusing others.

5 Persuading: Influencing others in favor of a product, service, or point of view.

6 Speaking-Signaling: Talking with and/or signaling people to convey or exchange information. Includes giving assignments and/or directions to helpers or assistants.

7 Serving: Attending to the needs or requests of people or animals or the expressed or implicit wishes of people. Immediate response is involved.

THINGS: Inanimate objects as distinguished from human beings; substances or materials; machines, tools, equipment; products. A thing is tangible and has shape, form, and other physical characteristics.

0 Setting Up: Adjusting machines or equipment by replacing or altering tools, jigs, fixtures, and attachments to prepare them to perform their functions, change their performance, or restore their proper functioning if they break down. Workers who set up one or a number of machines for other workers or who set up and personally operate a variety of machines are included here.

1 Precision Working: Using body members and/or tools or work aids to work, move, guide, or place objects or materials in situations where ultimate responsibility for the attainment of standards occurs and selection of appropriate tools, objects, or materials, and the adjustment of the tool to the task require exercise of considerable judgment.

2 Operating-Controlling: Starting, stopping, controlling, and adjusting the progress of machines or equipment designed to fabricate and/or process objects or materials. Operating machines involves setting up the machine and adjusting the machine or material as the work progresses. Controlling equipment involves observing gages, dials, etc., and turning valves and other devices to control such factors as temperature, pressure, flow of liquids, speed of pumps, and reactions of materials. Setup involves several variables and adjustment is more frequent than in tending.

3 Driving-Operating: Starting, stopping, and controlling the actions of machines or equipment for which a course must be steered, or which must be guided, in order to fabricate, process, and/or move things or people. Involves such activities as observing gages and dials; estimating distances and determining speed and direction of other objects; turning cranks and wheels; pushing clutches or brakes; and pushing or pulling gear lifts or levers. Includes such machines as cranes, conveyor systems, tractors, furnace charging machines, paving machines and hoisting machines. Excludes manually powered machines, such as handtrucks and dollies, and power assisted machines, such as electric wheelbarrows and handtrucks.

4 Manipulating: Using body members, tools, or special devices to work, move, guide, or place objects or materials. Involves some latitude for judgment with regard to precision attained and selecting appropriate tool, object, or material, although this is readily manifest.

5 Tending: Starting, stopping, and observing the functioning of machines and equipment. Involves adjusting materials or controls of the machine, such as changing guides, adjusting timers and temperature gages, turning valves to allow flow of materials, and flipping switches in response to lights. Little judgment is involved in making these adjustments.

6 Feeding-Offbearing: Inserting, throwing, dumping, or placing materials in or removing them from machines or equipment which are automatic or tended or operated by other workers.

7 Handling: Using body members, handtools, and/or special devices to work, move, or carry objects or materials. Involves little or no latitude for judgment with regard to attainment of standards or in selecting appropriate tool, object, or material.

NOTE: Included in the concept of Feeding-Offbearing, Tending, Operating-Controlling, and Setting Up, is the situation in which the worker is actually part of the setup of the machine, either as the holder and guider of the material or holder and guider of the tool.

LIFE PLANNING ACTIVITIES

Purpose: To help participants clarify and identify their role in life, and to think constructively and realistically about the future. To help students in the process of influencing their own futures.

Structure: Students, in groups of 4 or 5, work through a series of structured activities which are completed in 2 one-half day sessions.

(Optional) Draw picture of self at age 10
Unstructured sharing

1. Life Line (20 minutes)

Draw base line marked by 2-year segments, up to and beyond present age. Life line can be horizontal or a curve representing "ups and downs." Indicate significant events of past life--key or turning points.

Project line and events into the future as you see it.

Share and explain the life line and significant experiences with others.

2. Self-Description (30 minutes)

Write 10 adjectives or descriptive phrases (on separate pieces of paper) which apply to or describe you as you are now. Arrange them in rank order (1 being most descriptive of you or most important).

Explain and discuss your self-description with your group. Give feedback to others as they share their items.

3. Eulogy and Epitaph (10 minutes)

Eulogy: Write your own eulogy and epitaph, as you would like to have appropriate when you die; perhaps the kind of thing you'd like to have read at a memorial service for you. Not where you are or what you are now, but where you'd like and hope to be and what you'd like and hope to be by that time.

Epitaph: Inscription for tombstone.

Share eulogy and epitaph with each other (20 minutes)

4. Fantasy

Take a point 5 or 10 years from now. Fantasize the "perfect week." What will you be doing, who will be with you, where will you be, what will you be like, etc.? (10 minutes)

Share the fantasies with the others.

5. Development of Life Inventory (60 minutes)

Items: Great or peak experiences I've had.

Things I do badly and/or would like to stop doing.

Things I do well.

Things I would like to learn to do well and/or experiences I would like to have.

6. News Release (15 minutes)

May be feature article...but fairly brief (1 page)...news release on your life written by either a close friend, colleague, or a professional reporter at some point fairly far down your life line. Write what you would like to have written about you and what you might also be able to accomplish...a statement you like to read... include your predominant life roles/accomplishments/pleasures.

Sharing of News Releases (45 minutes)

7. Goal Setting (50 minutes)

Things I want to do starting right now.
Long-term goals.
How do I get started?

WHAT CAN I DO?

SITUATION: You're fired! All jobs in education are dried up. You must look for employment in another field. Complete these three columns identifying your skills, your interests, and the possible application of your skills and interests to jobs you have heard about.

Skills I Have	Things I Like to Do	Jobs Available

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SCHOOL POLICIES RELATED TO CAREER EDUCATION

Sample #1 from: State of South Carolina. Career Education in South Carolina: An official State Department of Education Position Paper. South Carolina Department of Education. Columbia, South Carolina, March, 1975.

The South Carolina Department of Education, aware that perhaps the label "career education" will eventually disappear, maintains that the basic tenets inherent in career education will not vanish. These principles serve as support for the belief that individuals must be exposed to more than content-learning, i.e., that teachers, parents, and the community must be actively concerned with all that affects the growth of the individual (social, physical, spiritual, aesthetic, mental, emotional, etc.).

Sample #2 from: Winn, Charles S. Careers in Focus Program Guide. McGraw Hill Book Company, New York, 1976.

A POLICY A BOARD MIGHT CONSIDER

In support of a commitment to a well-rounded and educationally sound curriculum, the Board endorses the concept of career education as an entity in itself, separate from and complementary to occupational education and vocational education. The Board sees career education as encompassing three phases: career awareness, career exploration, and career preparation.

The administration shall devise specific curriculum programs in career education relevant to the contemporary world of work and appropriate to the different learning abilities of the students of the district. Generally, it shall be the policy of the district to offer career awareness programs at the elementary grade level, career exploration programs at the secondary grade level, and career preparation programs at the senior high level, in conformance with recommendations of the U. S. Office of Education. Selection, organization, and integration of these programs shall be the responsibility of the administration.

The Board shall provide annually for the operation and maintenance of the career education program through adequate budget allocations.

YOUR SCHOOL POLICY

DEFINITIONS

1. CAREER ...."ONE'S PROGRESS THROUGH LIFE"

2. MAJOR "CAREER" ROLES

   A. WORK ROLE
   B. FAMILY ROLE
   C. CITIZENSHIP ROLE
   D. AVOCATIONAL ROLE
   E. CULTURAL-AESTHETIC ROLE
   F. RELIGIOUS ROLE

Career Education: The Alternative To Educational Discontinuity

"MORE THAN SKILLS TRAINING"

- SELF AWARENESS
- INFORMATION (Economic-Political-Social-Personal
- EXPERIENCE AND PRACTICE
- SKILLS TRAINING
- DECISION-MAKING SKILLS
- VALUES DEVELOPMENT
- CAREER AWARENESS

LEADS TO

STUDENTS MAKING

INFORMED

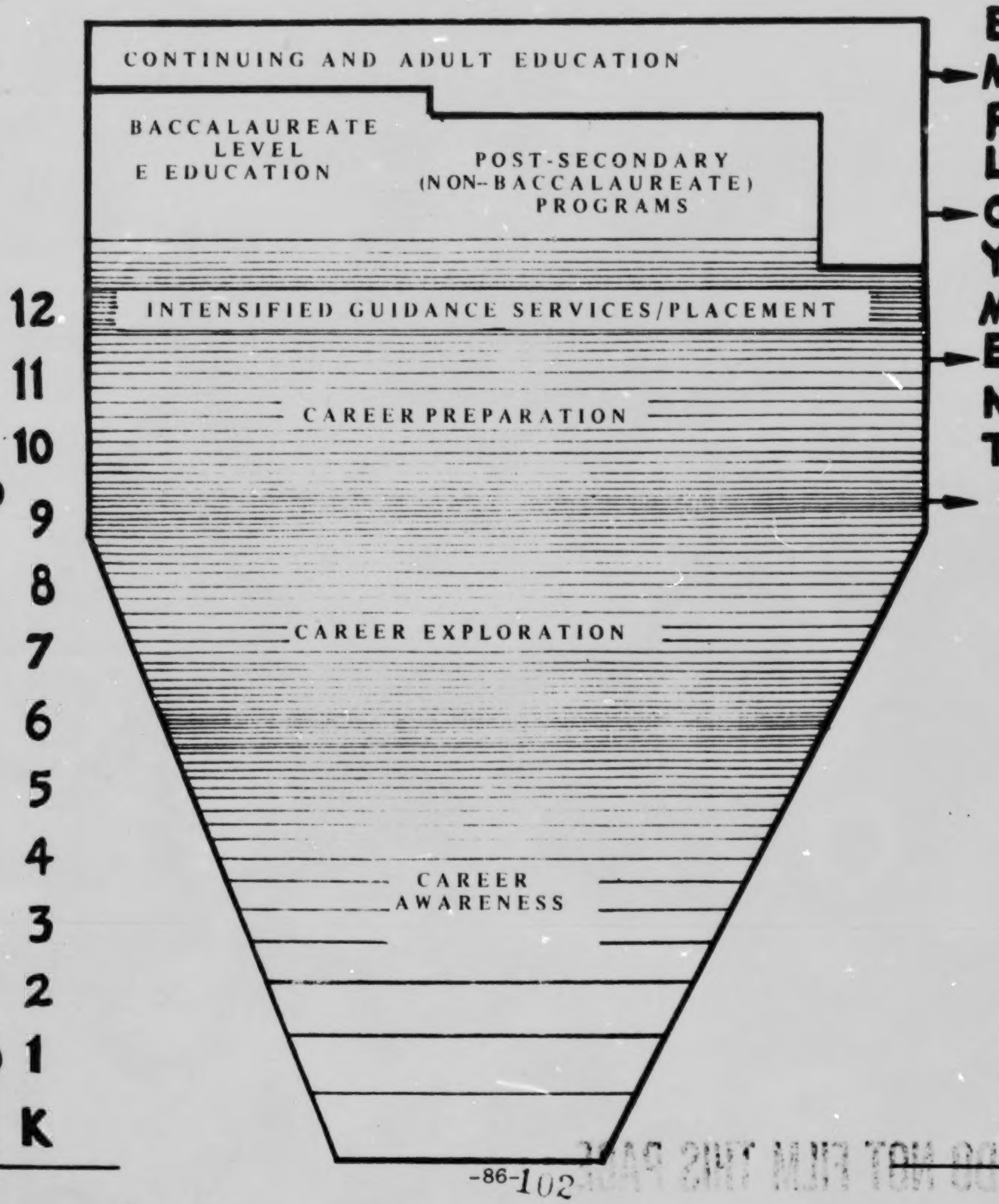
CHOICES

ABOUT

LIFE

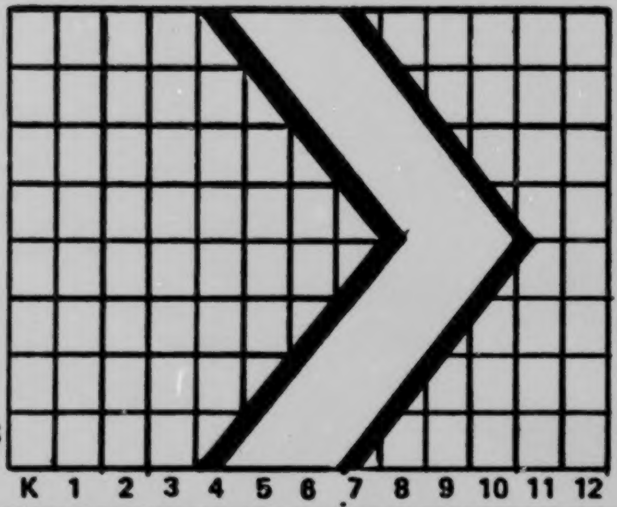
ROLES

A Comprehensive Career Education System


CONTINUING AND ADULT EDUCATION
BACCALAUREATE LEVEL E EDUCATION
POST-SECONDARY (NON-BACCALAUREATE) PROGRAMS
INTENSIFIED GUIDANCE SERVICES/PLACEMENT
CAREER PREPARATION
CAREER EXPLORATION
CAREER AWARENESS
EMPLOYMENT
12
11
10
9
8
7
6
5
4
3
2
1
K

Elements of a Comprehensive Career Education Program

Elements	**Outcomes**
SELF-AWARENESS	SELF-IDENTITY
EDUCATIONAL AWARENESS	EDUCATIONAL IDENTITY
CAREER AWARENESS	CAREER IDENTITY
ECONOMIC AWARENESS	ECONOMIC UNDERSTANDING
DECISION MAKING	CAREER DECISIONS
BEGINNING COMPETENCY	EMPLOYMENT SKILLS
EMPLOYABILITY SKILLS	CAREER PLACEMENT
ATTITUDES AND APPRECIATIONS	SELF-SOCIAL FULFILLMENT



Career Development Continuum (Pre-kindergarten Adulthood)

Derived from the U.S.O.E. Comprehensive Career Education Model, The National Center for Research in Vocational Education, The Ohio State University, Columbus, Ohio 1974.

15 OCCUPATIONAL CLUSTERS FOR CAREER EDUCATION

- BUSINESS AND OFFICE OCCUPATIONS
- MARKETING AND DISTRIBUTION OCCUPATIONS
- COMMUNICATIONS AND MEDIA OCCUPATIONS
- CONSTRUCTION OCCUPATIONS
- MANUFACTURING OCCUPATIONS
- AGRI-BUSINESS AND NATURAL RESOURCES OCCUPATIONS
- MARINE SCIENCE OCCUPATIONS
- ENVIRONMENTAL CONTROL OCCUPATIONS
- PUBLIC SERVICES OCCUPATIONS
- HEALTH OCCUPATIONS
- TRANSPORTATION OCCUPATIONS
- HOSPITALITY AND RECREATION OCCUPATIONS
- PERSONAL SERVICES OCCUPATIONS
- FINE ARTS AND HUMANITIES OCCUPATIONS
- CONSUMER AND HOMEMAKING-RELATED OCCUPATIONS

CHAPTER III

THE EIGHT ELEMENTS OF CAREER EDUCATION

Session three addresses the eight elements of career education, and career development theory. The goal of this session is to enable the participants to identify the eight elements, establish their personal definitions of these elements, and begin to use them in the design of instruction. They should also examine the process of "infusing" the elements into ongoing instruction, using a conceptual model of infusion. This will be followed by a discussion of the theory of career development, with a focus on Super's theory of career development or vocational development. The session includes also a brief review of the fifteen occupational clusters, and a discussion of the advantages and disadvantages of using those clusters to organize a curriculum.

If you choose a low-structure design, initiate instruction by presenting the eight elements, and dividing the class into eight separate small groups. Assign one element to each group, and ask that group to write a definition for that element in about ten minutes. Explain that this initial definition will serve as a kind of "straw man" or tentative definition. After the groups have finished writing individual definitions, bring the whole group together and have each sub-group write its definition onto a large sheet of newsprint with dark magic marker. Post these sheets on the wall, for the purpose of class review.

The class as a whole should now review and critique the tentative definitions, and try to improve upon them. When this process is completed, the result will probably not be one, smooth definition for each element. You will have generated, however, a large array of components for each element. These components will provide the real substance of each element.

The resource materials for this session include a definition of the eight elements, which might be used as a handout after the activity.

If you choose to use a high-structure activity, initiate instruction by distributing a list of the names of the eight elements to the entire group. Have students work individually on defining each of the elements. This will require approximately one-half hour. Then, present the accepted definition on the handout, and have the students compare it to their definitions. Lead a class discussion of the similarities and distinctions in their definitions. This discussion will require approximately one-half hour, and should be directed by the instructor.

The next activity for this session makes use of the career education infusion activity handouts. These include role-plays, simulations, activity sheets, and task cards. In the low-structure model, select several cards that you prefer, have the students review these sheets, and discuss in groups which elements they believe are infused, or blended into each activity. At this point the newsprint definitions are still on display as a point of reference for each element.

Impress upon the students that it is inappropriate to develop contrived, artificial explanations for elements in each activity. The elements should be fairly explicit to the observer, and clear in the mind of the reviewer. This will lead to a discussion of the infusion process. Included in the resource materials for this session is an overlay transparency which shows the eight elements, and explains how the concept for this infusion process is that the elements are not delivered individually in lessons. Rather, at least two elements should be blended into the existing concept, content, knowledge, or skill that is part of the ongoing lesson and curriculum. The elements are carefully injected conceptually into the established curriculum. This is the definition for infusion of career education.

An appropriate example to help explain this concept may be built from the analogy of a cup of black coffee, filled to the brim. In many respects, the elementary school curriculum is similarly filled to the brim. How do you blend or infuse something into that cup without something spilling over? Educators are always concerned that more and more is added to the curriculum and somehow nothing ever gets taken out. There is a fixed amount of instructional time in school and in the classroom. The analogy may be made to this cup of black coffee. We can take a teaspoon of "Cremora" or "Coffeemate," and drop it into the coffee. Somehow, it blends in without spilling over, and yet changes the nature of the coffee. This is generally a good description of how the infusion process affects the curriculum.

If you are using the high-structure approach, distribute the eleven activity sheets to the students. Have the students, as a whole group, read several of them together. Then direct a large group discussion of which elements are infused into each of the activities.

Next, use a formal lecture mode to present the conceptual model of the infusion process. Describe the coffee/"Cremora" analogy, and answer any questions from the class.

The next step in this lesson addresses the theory of career development. Distribute the transparency/handout containing the ten elements of Super's theory of vocational development. Have the students review them and use small groups (low-structure) for the participants to share with each other how one or several of these concepts influenced their own career choices or career development. If you are using the high-structure approach, present the theory to the class using the overhead projector. Respond to questions from the class as a whole. Then distribute the "Career Development Theories" handout for background information and personal reading.

The last activity in this session consists of a review of the fifteen occupational clusters. Using the materials provided, you might develop a separate worksheet which lists the fifteen clusters in one column, and ten occupational titles in another column. The students could then complete a matching exercise of occupations to clusters. This should lead to the conclusion that there are a number of clusters under which any specific title might fit, and that in fact it is very difficult to categorize specific clusters and specific occupational titles. Programmatically, this is one of the disadvantages of a curriculum derived from occupational clusters. You may then lead a discussion of the advantages and disadvantages of using clusters rather than elements or content areas as a vehicle for organizing a curriculum. This should lead to the conclusion that occupational clusters are simply another way of categorizing information. The students will probably feel that this is a less efficient or effective organizer than currently used arrangements. Most educators are unfamiliar with the fifteen clusters, publishers are not geared up to categorize materials on this basis, and libraries aren't organized according to this information. Consequently, it is probably not worthwhile, or economical, to organize a curriculum around occupational clusters. The viable use of clusters is for the organization of career information in a career resource center; or for the development of related occupational/ vocational curricula.

SESSION THREE

THE EIGHT ELEMENTS OF CAREER EDUCATION AND CAREER DEVELOPMENT THEORY

OBJECTIVES:

1. The participant will be able to identify and define the eight elements of career education.
2. The participant will be able to analyze which elements are present in sample activities.
3. The participant will be able to explain a conceptual model of career education infusion.
4. The participant will discuss theories of career development and describe the essential components of a developmental approach to career development theory.
5. The participant will review the 15 occupational clusters and discuss the advantages and disadvantages of organizing a career education curriculum around them.

HIGH-STRUCTURE GUIDELINES	LOW-STRUCTURE GUIDELINES
1. Give the 8 elements of career education to the class. Working individually, have the students define in writing all the elements.	1. Give the 8 elements of career education to the class. Working in four separate groups, each group will define two elements on a piece of newsprint and post it on the wall. (About 15 minutes)
2. The instructor provides accepted definitions (handout) and the students compare those to their definitions. The instructor will lead a discussion of the essential characteristics of each element.	2. The whole class will review, critique, add and delete from the tentative definition for for each element.
3. Use the series of eleven career infusion activities provided, lead the class through an analysis of how the elements have been infused into each activity.	3. After these definitions have been developed through consensus, distribute the definitions handout and analyze the comparisons.
4. Instructor presents a conceptual model of the infusion process, and will lead a class discussion. Use the overlay transparency for the conceptual base.	4. Distribute the eleven written activities handout and ask the groups to analyze which of the elements have been infused into each activity. Students will discuss their conception of the infusion process. Teacher verifies this using the overlay transparency provided.

SESSION THREE (Continued)

HIGH-STRUCTURE GUIDELINES	LOW-STRUCTURE GUIDELINES
5. Instructor presents an overhead transparency of Super's "10 Elements of a Theory of Vocational Development." The instructor leads a class discussion of those elements and how they relate to the 8 program elements of career education.	5. Using their copy of Super's "10 Elements of a Theory of Vocational Development," the students in small groups will provide personal examples of how the elements have affected their career lives.
6. The instructor distributes the 15 Occupational Clusters and elicits the advantages and disadvantages of using the clusters to organize a curriculum. Write the student responses on the blackboard in a chart form, listing the pluses and minuses of this organizing approach.	6. Give students the 15 Occupational Clusters. Have each student record ten occupational titles, and match which titles would be listed under which cluster. Students will discuss the advantages and disadvantages of using clusters to organize a curriculum.

RESOURCES:
1. Handout: The Eight Elements of Career Education
2. Handout: Major Career Development Theories
3. Infusion Model Transparency
4. Handout: Fifteen Occupational Clusters
5. Handout the Transparency: Super's 10 Elements of a Theory of Vocational Development
6. Newsprint Sheets, Markers, Chalk
7. Handout: Eleven Sample Infusion Activities

THE ELEMENTS OF A CAREER EDUCATION PROGRAM

SESSION THREE - CONTENT OUTLINE

1. Identify and define the 8 elements of career education
    a. Self awareness to self identity.
    b. Career awareness to career identity.
    c. Appreciations/attitudes to self/social fulfillment.
    d. Educational awareness to educational identity.
    e. Economic awareness to economic understandings.
    f. Decision-making to career decisions.
    g. Beginning competency to employability skills.
    h. Employability skills to career placement.
2. Analyze activities for presence of elements.
3. Conceptualize the infusion process.
    a. One or more of the 8 elements.
    b. Blended into ongoing curriculum.
    c. Naturalness of the relationship.
    d. Process more than content.
4. Presentation of Super's "10 Elements of a Theory of Vocational Development."
5. Presentation of the 15 occupational clusters.

RESOURCE MATERIALS

THE EIGHT ELEMENTS OF CAREER EDUCATION*

ELEMENT 1
Self-Awareness Leading to Self-Identity

The entering student has some knowledge and attitudes about himself, what kind of person he is, and what he hopes to become--self awareness. The learner will become involved in a planned sequential process of self-assessment and self-evaluation which results in self-identity; that is, he knows who he is and what he is like.

ELEMENT 2
Career Awareness Leading to Career Identity

The individual entering school possesses some knowledge about, attitude toward, and interest in careers. He knows something about career performance, associated life styles, rewards, leisure time, working conditions, and the education and training of some persons in some careers--career awareness. The learner will be assisted in understanding the broad range of careers available and what is involved in the development, growth, behavior, training, and rewards of persons engaged in specific occupations. He will experience active career exploration and preparation which leads to career identity as he selects a role or roles within a career.

ELEMENT 3
Appreciations and Attitudes Leading to Self and Social Fulfillment

Appreciations and attitudes are included as a means of focusing attention on the affective component of career education. Through career education experiences, the learner will develop an internalized value system which includes the valuing of his/her own career role and the roles assumed by others. These positive attitudes toward his/her own career role and the roles of others in society should lead to active and satisfying participation as a productive citizen and, thus, provide for both self-fulfillment and social fulfillment. Self-social fulfillment is the modification of a personal value system enabling the individual to appreciate his/her own role and the role of others.

ELEMENT 4
Educational Awareness Leading to Educational Identity

Learners have some awareness of the relationships between education and training, whether formal or experience-based, and the life role assumed by self and others. From this basic educational awareness, the learner will continue to develop and refine a thorough understanding of education and training in relation to career development. Educational identity combines an understanding of the relation between education and training, knowledge of self, personal learning style, pace, capabilities, and capacities.

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*Reproduced from Career Development in Nevada: A Conceptual Model of Career Education for Nevada Schools. Nevada State Board of Education.

ELEMENT 5
Economic Awareness Leading to Economic Understanding

The learner has observed and participated in the economic system to some extent prior to school entry. Building upon this base of economic awareness, the learner is led to an economic understanding as he/she experiences a systematic and thorough exploration of the economic system as it relates to career development and to the community.

ELEMENT 6
Decision-Making Skills Leading to Career Decisions

The learner has some understanding of decision-making and some decision-making skills. Through career education experiences he/she will develop increasing skill in decision-making; practice making decisions and come to accept the responsibility for personal decisions. Career decisions made during this career education program will be tentative and flexible. However, a learner should reach a decision that sets career direction early enough to provide for the development of entry-level skills in a chosen career plan.

ELEMENT 7
Skill Awareness and Beginning Competence Leading to Employment Skills

The learner has some awareness of the skills needed by workers in certain job roles and career fields. Building upon this skill awareness, the career education program will provide opportunities for the learner to participate in activities that development employment skills.

ELEMENT 8
Employability Skills Leading to Career Placement

Employability skills have to do with searching for, locating and obtaining career placement on both a paid and unpaid basis.

EDUCATIONAL GOALS DERIVED FROM THE EIGHT ELEMENTS OF CAREER EDUCATION

1. Recognizing the relationships of one's interests, aptitudes, and achievements to the realization of career/life aspirations.

2. Understanding and using the concept of "role" as a way of learning about oneself in relation to one's culture.

3. Accepting and respecting one's own uniqueness both in terms of past development and as changes occur as a result of learning, growth and maturation.

4. Recognizing and understanding the forces in one's environment that influence development (i.e., social, technological, economic, educational, cultural, etc.).

5. Recognizing and understanding that self-knowledge is related to a set or system of values that is unique to oneself.

6. Learning the importance of establishing (although tentative) personally relevant goals upon an understanding of oneself.

7. Recognizing that learning is a continuous process that occurs both in school as well as outside of school.

8. Recognizing that one's educational experiences are part of total career education and development.

9. Recognizing that various career directions are related to different types of educational preparation.

10. Recognizing the significance of education (i.e., the development of language, computational and reasoning skills, and mastery of content knowledge) as a primary means of achieving career and life goals.

11. Understanding the variety and complexity of occupations and career opportunities in the world of work.

12. Understanding the way in which occupations and careers relate to the goals, needs, and functions of the society.

13. Determining the basic characteristics and qualifications related to preparation for the performance of the major tasks associated with various occupational roles.

14. Understanding that "career" involves progression through stages of preparation and performance of occupational roles and may involve a change in basic vocational direction.

15. Understanding the relationship between an individual's career and his overall life style.

16. Understanding the range of social and economic benefits associated with various occupational roles and careers that are acquired in addition to one's actual salary or pay.

17. Understanding how economic wealth is accumulated by means other than those related directly to most occupations or careers (i.e., investments, interest, insurance savings, etc.) and how these may influence one's career and life style.

18. Relating one's present and anticipated economic status to the economic status of the nation, state and community and understanding the possible effects various trends and changes may have on status.

19. Becoming proficient in the process of identifying, gathering, and using resource information as part of the process of making decisions (related to career).

20. Understanding that the decision-making process includes responsible action in identifying possible alternatives, selecting the alternative most consistent with one's values and goals, and in taking the steps necessary to implement the chosen course of action.

21. Developing the planning and process skills required to solve problems logically.

22. Developing an understanding of the material used and processes associated with business, commercial and industrial activity, production and being competent in the use of the basic tools, equipment and materials associated with carrying out those processes.

23. Developing understanding of the fundamental types of interpersonal relationships generated as a result of the interaction of various occupational and career roles (i.e., employer, employee, supervisor, worker, associate, professional, paraprofessional, etc.).

24. Developing the educational and occupational competency regarded as basic and important to moving on to the next stage of preparation for and/or entry into the career area of one's interest.

25. Developing the required entry level skills appropriate for gainful employment in the area of occupational interest.

26. Recognizing and understanding the advantages, disadvantages, and responsibilities associated with working independently as a member of a cooperative team and/or in being supervised or directed.

27. Relating information about one's interests, aptitudes and qualifications to selecting, learning and/or performing duties or occupational roles assigned to or chosen by oneself.

28. Developing the basic work habits and attitudes regarded as necessary for entry and performance in the occupation and career of one's choice.

29. Recognizing that once a task or job is accepted, there are certain responsibilities to oneself and others.

30. Recognizing differences in others and developing tolerance and flexibility in one's interpersonal relationships.

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MAJOR CAREER DEVELOPMENT THEORIES*

Theory is often visualized as a conceptual model for ordering raw data and establishing a process to apply the data in practical situations. A useful career development theory provides the teacher with a sound basis for planning and implementing educational activities. It includes:

a. Data about human growth and development.

b. A process for interpreting that data.

c. A system to anticipate human behavior and needs (i.e., what to expect and what to look for).

d. Useful generalizations regarding career development needs of children and suggestions for classroom practice.

Career development theory is an emerging body of knowledge focusing on human behavior in relation to career choice. Several investigators have proposed theoretical approaches to understanding career development and selection.

Trait and Factor Theory - The essential elements of this theory rely on the psychology of individual differences. It is argued that each individual is a complexity of traits that comprise his/her unique capabilities and potentialities. The trait-and-factor approach suggests that an individual's abilities and interests can be matched to the requirements of various occupations. By utilizing assessment instruments, the teacher or counselor can correlate individual traits with the requirements of different jobs. Testing, according to proponents of this theory, is the best way to predict future career success. According to Peterson (1973), an elementary career education program built on a trait and factor approach is highly cognitive and informational. Time is spent helping a child discover personal abilities and interests, and begin to acquire information about the world of work as soon as possible. Early, forced decision-making of occupational choice is not appropriate. At the elementary level, the teacher should emphasize self-discovery and self-understanding.

It is important to remember that the interest patterns of the elementary school student are unstable and rapidly changing. However, interest inventories may be useful as a way of motivating youngsters to examine their interests in relation to the world of work. Some examples of interest surveys appropriate to the upper elementary grades are Kuder Form E - General Interest Survey, What I Like To Do - Interest Inventory, and Interest Inventory for Elementary Grades.

Decision-Making Theory - Recently, attempts have ben made to theorize about occupational choice through the use of decision models. Herr (1970) suggests that these approaches, based upon Keynesian economic theory, assume that an individual chooses a career or occupational goal which will maximize gain and minimize loss, anything of value to an individual being considered a gain or a loss. Herr maintains that implicit in this approach is the expectation that the individual can be assisted to predict the outcomes of each alternative and the possibility of such outcomes. The individual then chooses that which promises the greatest gain for the investment. At the elementary level, a career education program using a decision model approach might employ activities that teach the decision-making process. Opportunities for self-awareness and opportunities to gain accurate information about the world of work are vital components of the decision-making theories.

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*Reproduced from: Staff Development in Career Education for the Elementary School. Module II - Essentials of Career Development Theory. The National Center for Research in Vocational Education, The Ohio State University, Columbus, Ohio, 1975.

The following concepts are significant to this approach:

1. Choice occurs under conditions of uncertainty or risk (Brayfield and Crites, 1964).
2. A choice among possible courses of action can be conceptualized as motivated to two interrelated sets of factors: the individual's valuation of different alternatives and appraisal of the chances of being able to realize each of the alternatives (Blau et al., 1956).
3. The process of making a decision between uncertain outcomes requires reconciliation of several general factors: the relative valuing of the outcomes, the cost of attaining the outcomes, and the probability that each outcome may occur (Davidson et al., 1957).
4. Decision-making includes the identifying and defining of one's values; what they are and what they are not, where they appear and where they do not (Katz, 1966).

Sociological Theory - Basically this approach states that sociological factors--such as social class membership, home influences, the school, the community, pressure groups, and role perception--influence vocational development. These factors influence career choice by determining the employment opportunities available to an individual and which of those opportunities he will consider, and by identifying the social needs that he feels particular occupations will satisfy. According to Peterson (1973), elementary school career education programs that incorporate sociological theories of career development may include some of the following elements: (1) a program of parent involvement and parent education, (2) activities designed to encourage students to examine their values in relation to values of other pressure groups, (3) group activities which enable the student to identify his role perception (e.g., leader, follower, enabler, or isolate), (4) activities taking full advantage of the experiential background of the student (ethnic, cultural, etc.), and (5) examination of opportunities in the community.

Lipsett (1962) has suggested it is necessary to understand the implications for an individual of the following social factors as they interact with vocational development:

1. Social class membership--e.g., occupation and income of parents, place and type of residence, and ethnic background.

2. Home influences--e.g., parental goals for the individual, influence of siblings, family values and counselee's acceptance of them.

3. School--e.g., scholastic achievement, relationship with peers and faculty, values of the school.

4. Community--e.g., the "thing" to do in the community, group goals and values, special opportunities or influences.

5. Pressure groups--e.g., the degree to which an individual or his parents have come under any particular influence that leads him to value one occupation over another.

6. Role perception--e.g., the individual's perception of himself as a leader, follower, isolate, etc.; the degree to which his perception of himself is in accord with the way others perceive him.

Miller and Form (1964), occupational sociologists, have woven the above factors into a theory of occupational choice which emphasizes work stages and career patterns. According to Miller and Form, an individual's vocational development can be divided into five work states: preparatory stage (beginning in childhood and continuing into the school years); initial work stage (which includes the individual's experiences with part-time and full-time work prior to the completion of formal education); trial stage (in which there is an exploration of several jobs of short-term duration); stable work period (in which the individual stabilizes in a particular job); and the retirement stage.

Psychological Theory - This approach to understanding career development suggests that each individual has unique needs which direct him to occupations or environments which satisfy these needs. The motivating factors may be conscious or unconscious, and are thought of as being goal-directed. Maslow (1954) suggests the following needs hierarchy:

1. Physiological needs.

2. Safety needs.

3. Need for belongingness and love.

4. Need for importance, self-esteem, independence.

5. Need for information.

6. Need for understanding.

7. Need for beauty.

8. Need for self-actualization.

According to Roe (1965), the needs hypothesized by Maslow provide the motivation for career choice. These motivations, however, can be largely unconscious. An individual's experiences during childhood, particularly his relationship with his parents, cause some of the needs to become dominant. The dominant needs are translated into interests and the interests are translated into vocational selection. Roe believes that the intensity and organization of an individual's needs are set by kindergarten age. Roe's theory appears to offer two alternatives at the elementary level; one is to omit career education altogether, the other is to provide a career education program in the hope that it will assist children in satisfying some of their needs.

Holland (1966) assumes that a person expresses his personality through the choice of an occupation. He maintains that we can classify individuals into a limited number of personality types and that work situations or work environments can similarly be classified into a few categories. Holland's theory suggests that a person's growth and development are influenced by both hereditary and environmental factors. Each person is a product of his culture. Peers, parents, and significant adults play a major role in the ultimate career choice of each individual. Out of these experiences and interactions, a habitual or preferred method for dealing with environmental tasks is developed. Holland divides the occupational world into six model environments, which attract people with similar personality typologies. These occupational models are depicted in Figure 1.

The model orientations correspond to the occupational environments. For example, a realistic child would prefer to deal with activities and learning tasks that emphasize the use of psychomotor skills. The manipulation of objects, the playing of games, and other motor activities would characterize a learning situation for this child.

A career education program using Holland's theory would encourage activities promoting self-understanding and personal adjustment. In addition, because of the significance of occupational stereotypes in his theory, it would be necessary that children acquire accurate information about the world of work as soon as they are able.

Developmental Theory of Career Development - The position espoused by Super, Havighurst, and other investigators states that career development begins early in life and proceeds along a continuum of experiences. Occupational choice is a developmental process that involves a series of tasks divided over a series of life stages. Individuals pass through similar life stages and a career program must provide experiences compatible with these periods. According to Havighurst (1964), for example, a developmental task for children ranging in ages from 5-10 is to identify with a worker and achieve success in the work tasks appropriate for this age group.

The attainment of success in the tasks assigned to elementary school children is essential for development of later career success. A child who experiences success activities will be stronger psychologically and able to absorb the stresses of adult participation in our culture. Learning to make compromises between self-concept and reality is essential to participation in the real life situations of work and leisure.

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FIGURE 1.

A SUMMARY OF HOLLAND'S (1959-1966) PERSONALITY TYPES AND ENVIRONMENTAL MODELS*

TYPE	DESCRIPTION	
	PERSONALITY TYPES (Modal Personal Orientation)	ENVIRONMENTAL MODELS (Occupational Environments)
Realistic (Motor)	Enjoys activities requiring physical strength; aggressive; good motor organization; lacks verbal and interpersonal skills; prefers concrete to abstract problems; unsociable; etc.	Laborers, machine operators, aviators, farmers, truck drivers, carpenters, etc.
Intellectual (Investigative)	Task oriented, "thinks through" problems; attempts to organize and understand the world; enjoys ambiguous work tasks and intraceptive activities; abstract orientation; etc.	Physicist, anthropologist, chemist, mathematician, biologist, etc.
Social (Supportive)	Prefers teaching or therapeutic roles; likes a safe setting; possesses verbal and interpersonal skills; socially oriented; accepting of feminine impulses; etc.	Clinical psychologist, counselor, foreign missionary, teacher, etc.
Conventional (Conforming)	Performs structured verbal and numerical activities and subordinate roles; achieves goals through conformity.	Cashier, statistician, bookkeeper, administrative assistant, post office clerk, etc.
Enterprising (Persuasive)	Prefers verbal skills in situations which provide opportunities for dominating, selling, or leading others.	Car salesman, auctioneer, politician, master of ceremonies, buyer, etc.
Artistic (Esthetic)	Prefers indirect personal relationships, prefers dealing with environmental problems through self-expression in artistic media.	Poet, novelist, musician, sculptor, playwright, composer, stage director, etc.

*Zaccaria, J. _Theories of Occupational Choice and Vocational Development_, 1970, p. 44.

Both Super and Havighurst suggest that personality development and career development are interdependent variables in the maturation process. It is important therefore that career education programs integrate the concepts of appropriate career development theory. Provision for individual differences must also be accounted for in the career education program.

Ginzberg (1951) et al., have proposed that occupational choice is not a single decision, but a developmental process which takes place over a minimum of six or seven years and often ten or more years. The process is largely irreversible which implies: (1) that decisions cannot be repeated, and (2) that later decisions are limited by previous decisions. Ginzberg proposes three stages of career development: fantasy choice, tentative choice, and realistic choice. These periods correspond roughly to the elementary school years, the junior and early high school years, and the late high school years and after.

Super (1963), in expounding one of the most comprehensive theories of career development, suggests that the process of vocational development is essentially that of developing and implementing a self-concept. According to Super, every person is suited to do many different jobs and occupational choice depends on many factors--socioeconomic background, abilities, and available opportunities. Through a process of compromise between individual and social factors, the individual chooses the career that will enable him to be the kind of person that he views himself to be. An individual may change his occupation if he discovers that it is not congruent with his self-concept or if his self-concept changes. Super holds that children must be provided with exploratory activities that help individuals differentiate their unique needs in the career area. Satisfactory career adjustment provides the foundation for self-expression, status, and self-esteem. In school, teachers could devote considerable energy to providing experiences that help children clarify their self-concept. Steps to self-knowledge might include a realistic appraisal of interests, abilities, values, and personality traits. Each child should be given opportunities in school to clarify reasons for his behavior, feelings, and attitudes.

Super has identified the main elements of a theory of vocational development and organized these elements into a summary statement of a comprehensive theory. The statement includes these ten "propositions:"

1. People differ in abilities, interests, and personalities.

2. Individuals are qualified, by virtue of these characteristics, for a number of occupations.

3. Each occupation requires a characteristic pattern of abilities, interests, and personality traits, with tolerances wide enough, however, to allow both some variety of occupations for each individual and some variety of individuals in each occupation.

4. Vocational preferences and competencies, the situations in which people live and work, and hence their self-concepts, change with time and experience, making choice and adjustment a continuous process.

5. This process (item 4) may be summed up in a series of life stages characterized as those of growth, exploration, establishment, maintenance, and decline, and these stages may in turn be subdivided into: (1) fantasy, tentative, and realistic phases of the exploratory stage, and (2) the trial and stable phases of the establishment stage.

6. The nature of the career pattern is determined by the individual's parental socioeconomic level, mental ability, and personality characteristics, and by the opportunities to which he is exposed.

7. Development through the life stages can be guided, partly by teachers facilitating the process of maturation of abilities and interests and partly by aiding in reality testing and in the development of the self-concept.

8. The process of vocational development is essentially that of developing and implementing a self-concept: it is a compromise process in which the self-concept is a product of the interaction of inherited aptitudes, neural and endocrine make-up, opportunity to play various roles, and evaluations of the extent to which the results of role-playing meet with approval of superiors and fellows.

9. The process of compromise between individual and social factors, between self-concept and reality, is one of role-playing, whether the role is played in fantasy, in the counseling interview or in real-life activities such as school classes, clubs, part-time work, and entry jobs.

10. Work satisfaction and life satisfactions depend upon the extent to which the individual finds adequate outlets for his abilities, interests, personality traits, and values: they depend upon his establishment in a type of work, a work situation, and a way of life in which he can play the kind of role which his growth and exploratory experiences have led him to consider congenial and appropriate. (Osipow, 1968.)

Super has developed a series of life stages that suggest important factors which influence career choice from the earliest stages onward. Below is a synthesis of those life stages:

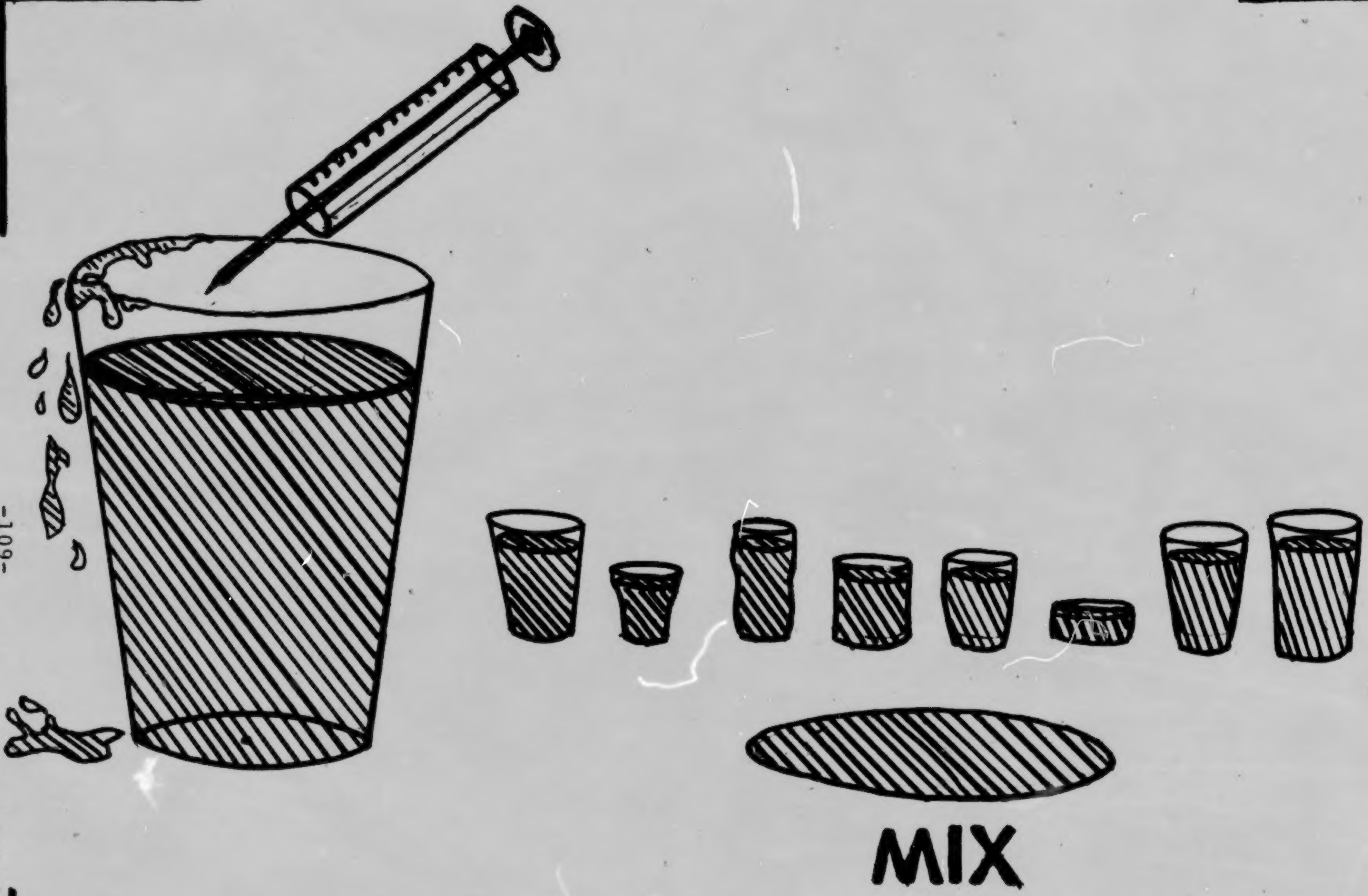
GROWTH STAGE: (Birth-14) - Self-concept develops through identification with key figures in family and in school; needs and fantasy dominate early in this stage; interest and capacity become more important in this stage with increasing social participation and reality-testing. Substages of the growth stage are fantasy (4-10), interest (11-12), and capacity (13-14).

EXPLORATION STAGE: (Age 15-24) - Self-examination, role try-out, and occupational exploration take place in school, leisure activities, and part-time work. Substages of the exploration stage are: tentative (15-17), transition (18-21), and trial (22-24).

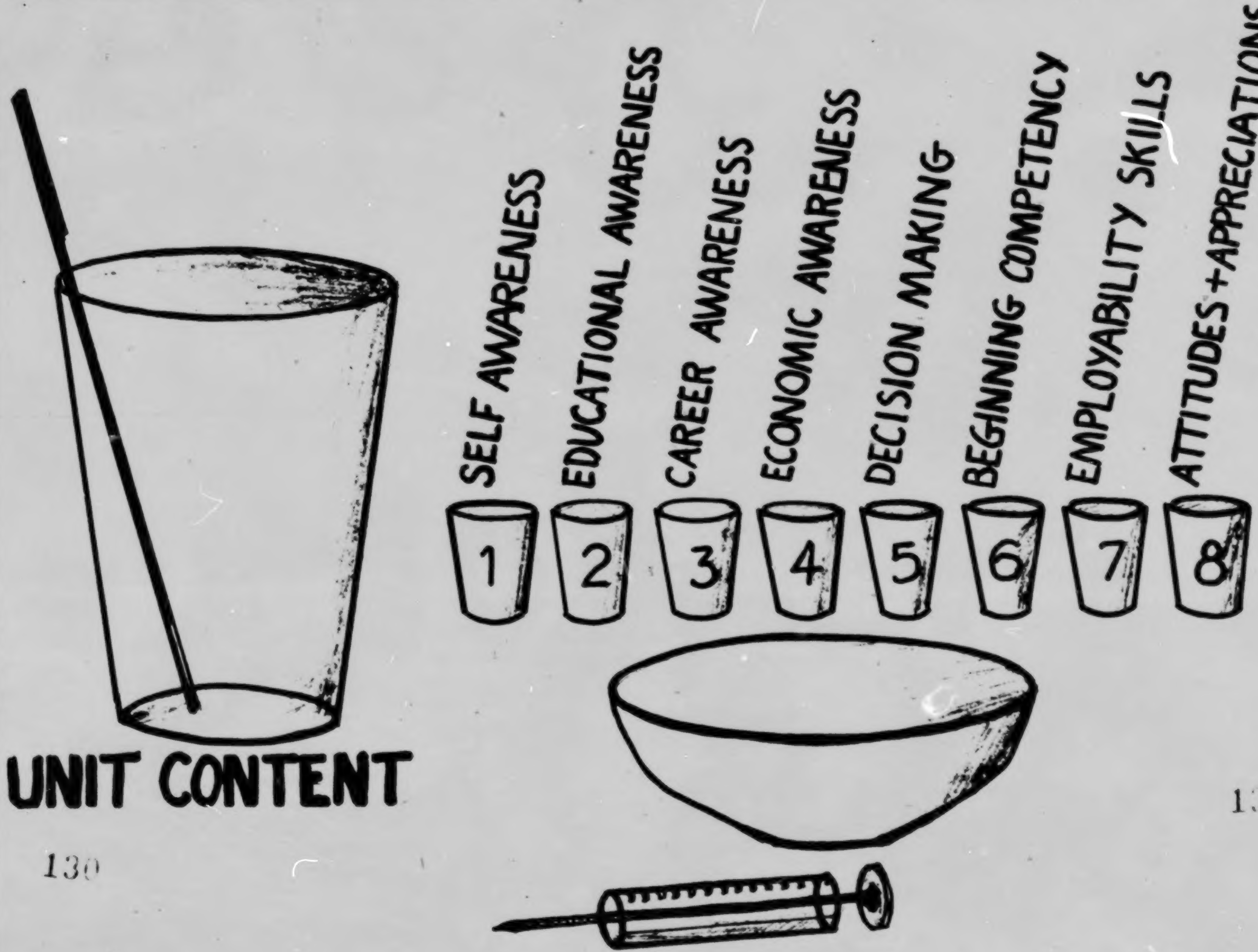
ESTABLISHMENT STAGE: (Age 25-44) - Having found an appropriate field, a person puts forth effort to make a permanent place in it. There may be some trial early in this stage, with consequent shifting, but establishment may begin without trial, especially in the professions. Substages of the establishment stage are: trial (25-30), and stabilization (31-44).

MAINTENANCE STAGE: (Age 45-64) - Having made a place in the world of work, the person is now concerned to hold it. Little new ground is broken, but there is continuation along established lines.

DECLINE STAGE: (Age 65 on) - As physical and mental powers decline, work activity changes and in due course ceases. New roles must be developed; first that of selective participant and then that of observer rather than participant. Substages of this stage are: deceleration (65-70), and retirement (71 on). (Bailey and Stadt, 1973.)



ACONCEPTUAL MODEL OF CAREER EDUCATION INFUSION


UNIT CONTENT
SELF AWARENESS
EDUCATIONAL AWARENESS
CAREER AWARENESS
ECONOMIC AWARENESS
DECISION MAKING
BEGINNING COMPETENCY
EMPLOYABILITY SKILLS
ATTITUDES + APPRECIATIONS
1
2
3
4
5
6
7
8

FIFTEEN OCCUPATIONAL CLUSTERS

The U. S. Office of Education has grouped all jobs into 15 different groups called clusters. Below are the 15 clusters and some careers in each cluster.

Are your careers listed below? If not, in which clusters do you think they belong?

AGRI-BUSINESS NATURAL RESOURCES

- Farmer
- Wildlife & Conservation Technician
- Agronomist
- Horse Breeder
- Agricultural Engineer
- Entomologist

PUBLIC SERVICE

- Teacher
- Lawyer
- Armed Forces
- Fire Fighter
- F.B.I. Agent
- Census Clerk

HOSPITALITY & RECREATION

- Stunt Man
- Recreation Specialist
- Hotel Manager
- Ski Instructor
- Professional Athlete
- Chef

MARINE SCIENCE

- Fish Culturist
- Oceanographer
- Aquanaut
- Hydrologist
- Marine Biologist
- Research Technician

TRANSPORTATION

- Airplane Pilot
- Cab Driver
- Air Traffic Controller
- Merchant Marine
- Truck Driver
- Steward/Stewardess

BUSINESS & OFFICE

- Accountant
- Computer Programmer
- Bank Teller
- Receptionist
- Bookkeeper
- Insurance Underwriter

ENVIRONMENT CONTROL

- Urban Planner
- Forest Ranger
- Geodesist
- Sociologist
- Soil Conservationist
- Environmental Engineer

MANUFACTURING

- Tool Designer
- Millwright
- Electrical Engineer
- Machinist
- Foreman
- Sheet Metal Worker

PERSONAL SERVICES

- Tailor
- Waiter/Waitress
- Travel Guide
- Cosmetologist
- Marriage Counselor
- Masseur/Masseuse

CONSUMER & HOMEMAKING

- Homemaker
- Dietician
- Credit Manager
- Home Economist
- Nutritionist
- Consumer Affairs Manager

HEALTH

- Medical Technician
- Practical Nurse
- Audiologist
- Veterinarian
- Physical Therapist
- Dental Hygienist

COMMUNICATION & MEDIA

- Television Producer
- Technical Writer
- Graphic Artist
- Cameraperson
- Stage Hand
- Disc Jockey

MARKETING & DISTRIBUTION

- Market Research
- Mail/Stockroom Clerk
- Salesperson
- Retail Store Manager
- Statistical Typist
- Newspaper Circulation Manager

CONSTRUCTION

- Carpenter
- Surveyor
- Pipefitter
- Stonemason
- Draftsman
- Architectural Engineer

FINE ARTS & HUMANITIES

- Clothing Designer
- Historian
- Astronomer
- Cartoonist
- Playwright
- Opera Singer

TEN ELEMENTS OF A THEORY OF VOCATIONAL DEVELOPMENT

(Super)

1. PEOPLE DIFFER IN ABILITIES, INTERESTS, PERSONALITIES.

2. INDIVIDUALS ARE QUALIFIED FOR A NUMBER OF OCCUPATIONS.

3. EACH OCCUPATION REQUIRES A CHARACTERISTIC PATTERN OF ABILITIES, INTERESTS, AND PERSONALITY TRAITS----WITH A RANGE OF TOLERANCE.

4. VOCATIONAL PREFERENCE, COMPETENCE, AND SELF--CONCEPT CHANGES WITH TIME AND EXPERIENCE.

5. THIS CHANGE PROCESS (4) MAY BE SUMMED UP IN A SERIES OF LIFE STAGES.

6. NATURE OF INDIVIDUAL CAREER PATTERNS IS DETERMINED BY SOCIOECONOMIC LEVEL, MENTAL ABILITY, PERSONALITY CHARACTERISTICS, AND OPPORTUNITIES.

7. DEVELOPMENT THROUGH LIFE STAGES CAN BE GUIDED.

8. VOCATIONAL DEVELOPMENT IS DEVELOPING AND IMPLEMENTING A SELF--CONCEPT.

9. THE PROCESS OF COMPROMISE BETWEEN INDIVIDUAL AND SOCIAL FACTORS, AND SELF--CONCEPT AND REALITY IS ROLE PLAYING.

10. WORK SATISFACTION AND LIFE SATISFACTION IS FOUND THROUGH ADEQUATE OUTLETS FOR ABILITIES, INTERESTS, PERSONALITY, AND VALUES.

CAREER EDUCATION INFUSION*

Activity #1

Role Playing - John Smith and Gentleman Jim

The Jamestown settlement was made up of many "gentlemen." These gentlemen were often wealthy landowners who had others do all of the hard work on their estates in Britain.

Situation: John Smith has been selected leader of the colony at Jamestown. Gentleman Jim has not been doing his share of work. John Smith must now have a heart-to-heart talk with Gentleman Jim and try to impress upon him the importance of work.

Role 1: John Smith - As leader, you have told the group, "He who does not work does not eat." Now Gentleman Jim has been reported to you by several colonists. You have got to get him to do his share. Try to give him all the reasons why he must work.

Role 2: Gentleman Jim - You have always paid others to work for you. You came to this colony because you wanted an adventure. You were curious to see the New World. Now that you have come, all you do is work. You feel you've tried to do your share, but you really are not a worker, you're a gentleman.

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*These activities developed by Dr. Lawrence Aronstein, Principal, Memorial School, Millis, Massachusetts and reproduced with his permission.

CAREER EDUCATION INFUSION

Activity #2

Task - It Was A Good Day

It was a good day if a young Indian brave could bring home at least two Buffalo calves after a hunt. It was a good hunt if only a few people had been hurt.

What do you consider to be a good day? A secretary might count how many pages he or she has typed. A medical doctor might count how many patients he or she has seen. A teacher might feel it was a good day if Johnny said: "That was a great lesson!"

Interview your parents, their friends, and your neighbors. Find out what they do and how they know if they had a good day. Fill in the chart:

What They Do	A Good Day's Work

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CAREER EDUCATION INFUSION

Activity #3

Simulation - The Myth of the Barnyard

Following is a cast of caricatures and a brief characterization of each:

The Pig -- More than anything in the whole world, you love to eat. You live in a sloppy, rundown old house--but you have the best equipped kitchen in the neighborhood. Most of all, you wish you could eat at the best restaurants.

The Horse -- More than anything you love to work. You work 12 hours each day and at the end of the day, you bring work home and work some more. Most of all you want the next promotion so that you can get even harder work.

Barn Swallow -- More than anything, you love your home. You always say your home is your castle. You're always buying some antiques to fill your living room, family room and play room.

The Penguin -- More than anything, you love to buy new clothes--only the latest fashions for you. Most of all you love to be complimented on your new styles.

The farm is owned by Uncle Almo. Last week, Uncle Almo passed on. Uncle Almo left each of his animals $5,000. How did each of our barnyard friends spend their money? Describe how they used this money to develop their preferred lifestyle.

What would you do with $5,000? What is your preferred lifestyle? How would you use this money to help achieve your lifestyle?

CAREER EDUCATION INFUSION

Activity #4

Task - Necessity or Luxury

People in China, and most parts of the world today, have to plan carefully how to spend their money. People are learning to buy only what is necessary. They are spending less on luxuries in life.

From the list of things that you might spend money on, place an "n" next to the things you think are necessities and an "l" next to those that are luxuries. Then look at the things marked with an "l." What things can you do instead of these luxuries that you will also enjoy but will cost less?

Saturday movie
Milk for lunch
Potato chips for a snack
A new toy
A store-bought card for Dad's birthday
A new tire for your bike
Baseball cards
Haircut

What are some of your necessities that are not on this list? What are some of your other luxuries that are not on this list?

CAREER EDUCATION INFUSION

Activity #5

Task - Need to Read

Many people in many places of the world cannot read or write. Reading is a very important skill needed in many jobs. Look at the list below. Place a check ( ) next to those jobs where reading is important.

JOBS	Is reading an important part of this job?	
	YES	NO
TEACHER		
LAWYER		
BUS DRIVER		
SECRETARY		
NURSE		
STEWARDESS/STEWARD		
REPORTER		
JANITOR		
CASHIER		
BANK TELLER		

List five more jobs that require reading skills.

1.

2.

3.

4.

5.

List five more jobs that do not require any reading skills.

1.

2.

3.

4.

5.

CAREER EDUCATION INFUSION

Activity #6

Task - Leadership Ability

Eskimos chose their leaders according to who was the best hunter in the village. What do you look for in a leader?

If you were going to choose a chairperson, what kind of person would you vote for?

Below is a list of characteristics which some leaders have.

Check the characteristics you think are most important. Let a classmate check what he or she thinks are most important. Then show the list to a parent or another adult and let him or her check the list too.

Leadership Characteristics

Me	Classmate	Adult	
____	____	____	Common sense
____	____	____	Gets high marks
____	____	____	Is well liked
____	____	____	Good athlete
____	____	____	Strong
____	____	____	Good looking
____	____	____	Popular with teachers
____	____	____	Helps others
____	____	____	Tries hard
____	____	____	A big shot
____	____	____	Honest

CAREER EDUCATION INFUSION

Activity #7

Task - Seasonal Jobs

There are many different kinds of seasonal jobs. List the types of jobs that are especially important during the following seasons. These jobs might not even exist during the rest of the year.

Fall (Harvest) Time	Christmas Time	Summer Time	Winter Time
Example: apple pickers			

Now choose five of the seasonal jobs you thought of and tell how that part-time job might lead to a full-time career.

Part-Time Job	Full-Time Career
____________________	____________________
____________________	____________________
____________________	____________________
____________________	____________________
____________________	____________________

CAREER EDUCATION INFUSION

ACTIVITY #8

Role Play - Equal Pay for Equal Work

Situation: Two soldiers have returned home from war. Both of their wives have taken jobs while they were away. Both wives have done well in their careers. Both couples have school age children.

Role 1: Helen Smith - You are now making more money than your husband. You enjoy your work and want to keep on working.

Role 2: Howard Smith - Before going into the army, you were a clerk in the local supermarket. Although you did not make a lot of money, you had enough to manage. You want your wife to stop working.

Role 3: Edith Jones - You, too, are making more money than your husband. But you do not enjoy working outside your home. You want to quit your job and return to being a full-time homemaker.

Role 4: Edward Jones - Like Howard Smith, you can support your family, but there will be no extras. If your wife continues to work, you feel you will be able to save up for a new home.

Have a discussion about who should continue working, and why. Each couple should come to its own decision. Then they should share their solutions with each other and discuss any differences.

Finally, the entire class should review the entire activity and discuss all the reasons and conflicts - both the ones presented and others not presented - about why people work, who should work, and the role of women in the world of work.

CAREER EDUCATION INFUSION

ACTIVITY #9

Task - Career Time Line

Many different ideas can be explained by time lines. Time lines show what happens over the years. For example, over the years a person might have many different jobs.

Ask your parents to help you draw a time line of their careers.

Mom's Career Time Line

What she did ______________________________
(Date)

Dad's Career Time Line

What he did ______________________________
(Date)

What do you think your career will be? Project your own time line for your expected career.

Your Career Time Line

What you plan ______________________________
to do
(Date)

CAREER EDUCATION INFUSION

ACTIVITY #10

Role Play - Sacrifice

This role play is designed to demonstrate that the value of one's occupation really depends on circumstances and situations. Certainly, the skills of the four carpenters who arrived at Jamestown were a lot more valuable than the "gentlemen" upon arrival.

Below are listed 10 occupational roles:

- Carpenter
- School Teacher
- Forest Ranger
- Author
- Shoe Salesman
- TV Sportscaster
- Chef
- Electrician
- Dentist
- Policeman

Assign the 10 roles to 10 students. Try to avoid sex stereotyping. Read the situation:

Situation: The 10 of you had been passengers on a cruise ship. The ship hit an iceberg and the 10 are the only survivors. You are afloat on a very crowded life raft. You are running out of food and water. Your two-way radio is broken. You have seen some birds circling. The boat is so crowded and low in the water that every time a large wave comes, it splashes water into the raft.

Someone is going to have to sacrifice himself or herself and leave the raft.

Have each student, one at a time, describe why he/she should not be sacrificed. Then have the students role play the process by which they decide who will be sacrificed.

CAREER EDUCATION INFUSION

ACTIVITY #11

Simulation - The Student Union

An effective union must be able to reach decisions based upon the will of the rank and file. A great deal of valuing goes into such a decision as a strike.

Simulate a situation where the entire class will make believe they are the workers in a shop. Have the class select a shop steward who will negotiate with management. Below is a listing of the issues and the current conditions relative to each issue:

Issue	Current Condition
Hourly wages	$3.50/hour plus time and a half for overtime
Vacations	2 weeks/year plus 1 week extra for each 10 years of employment
Benefits	Employer pays 80% of medical, 50/50 retirement contributions, retirement at 62 years of age
Working Conditions	20 minute coffee break morning and afternoon, 1 hour for lunch, 40 hour week

Have the shop steward appoint shop representatives. Each representative will meet with groups of six and report to shop steward.

Questions

Now that cost of living is up 8% this year, what demands do you want your representatives to bargain for?

It is suggested that the teacher plays the role of management. Outline the following management issues to all the workers once they've agreed on demands:

Management Issues

1. The company is making less money than they did last year.
2. The national office has ordered that there will be no raises.
3. Some workers will have to be let go if raises are to be given to others.
4. There will be no more overtime work.

Lead the student representatives in a bargaining session. Keep careful accounting of the issues by listing them on the blackboard as they arise. From time to time, make the representatives a "final offer"--example--"if you agree to my firing of 5 workers, I'll agree to a small raise." Open opportunities for the representatives to return to the rank and file to confer.

CHAPTER IV

MAPPING CAREER EDUCATION TO THE SCHOOL CURRICULUM

The first three sessions of this training program are designed to provide the participants with an overview of career education. Historical antecedents, philosophy and rationale, broad programmatic components, and the eight elements of career education that form the basis for program development are presented and discussed. This provides each participant with a solid grounding in the roots of career education, which can then serve as the focal point for curriculum design. It should be noted as well that the concept of infusion has been stressed as the cornerstone of program development. The integration, or infusion, of career education elements and concepts into the ongoing curriculum is essential to the growth and development of future programs.

In the sessions to follow this one, emphasis will be placed upon the specific skills and processes needed for writing and developing curriculum at varying levels and depths. Individual infusion activities, interdisciplinary units of instruction, activity centers, role playing, and the use of the community as a resource are all examples of specific strategies and skills for implementing career awareness programs. They form the answer to the HOW of career education.

This session, therefore, is critical and pivotal to the entire training program. For it is here that the teacher must determine WHAT in the curriculum is appropriate for infusion activities. A number of activities have shown that not all curriculum activities should receive career awareness infusion. Similarly, not all eight elements are appropriate for any given classroom activity. How, then, does the classroom teacher determine which curriculum activities should receive career education infusion, and which of the eight elements should be infused into that activity? This is the issue of mapping, or overlaying the eight elements of career education onto appropriate classroom activities.

Just as it is very important that career awareness infusion activities should not be contrived, it is equally important that they not be placed inappropriately into the curriculum. What is to prevent a number of different teachers from performing the same activity as an infusion exercise over and over again to the same students? How can we be sure that the program of career education is indeed developmental? There may not be a "hard and fast" scope and sequence of career awareness activities, due to the very nature and design of the infusion process. On the other hand, some care and concern must be given to the continual building and developing of these elements over time, so that the skills and attitudes of the students regarding each of these eight elements develop as well. This is one of the most significant issues in preparing a career awareness curriculum.

These two concerns, therefore, form the basis for this session. First, the process of determining which of the eight elements should be infused into any given ongoing curriculum activity, and how these elements should be converted into career awareness activities is examined. Secondly, the determination is made regarding how these activities may develop over the course of the school year, so that the students will grow and develop in their awareness levels regarding each of these eight elements. If the students in the class use this session to learn how to analyze their ongoing curriculum and determine where career education is most appropriately infused, they will have the basis for developing an entire career education curriculum.

The first step in this process will be to analyze part of each participant's ongoing curriculum. For this purpose, the teachers were asked to bring one of the textbooks their students use to this class session. Preferably, a social studies or language arts book will be available. Using the three grid sheets, the class members should read one chapter or section of their book and carefully identify the knowledge, skills, and attitudes found in this chapter, in both direct and hidden fashion. The knowledge is the information that the students must know and that is transmitted through the content of the chapter. The skills are the capabilities that are required to read and do the work of the chapter. Also included will be the skills required of any characters in the chapter in performing the activities described in the book. The information sheets of transferable skills in Session 2 of this training program may be helpful for review in identifying skill areas. Finally, the attitudes, or values in these materials should be identified. These may be the values required of the reader to read the materials and do the work required. Or, it may be the values found in the story or characters of the book. Work values, lifestyle values, social values, and cultural values should be identified and recorded. If you are following a high-structure format, you should complete this process by describing the procedures to the students and then have them work on the task independently. If you are following a low-structure process, have the students form groups of three and ask each group to read and review one common story, and then complete the grid sheet as a team for that story.

The next step in this process will be to record those elements that most appropriately match each of the knowledges, skills, and attitudes identified in the search process. Knowledge about self or an individual will match, for example, to the self awareness element. Knowledge about a group or society may match the self/social fulfillment element, and so on. Each of these knowledges, skills, and attitudes will naturally fit one or more of the eight career education elements. When the entire process is completed, each of the knowledges, skills, and attitudes will have one or more career education elements checked against it. By adding the columns vertically according to elements, you may readily see which of the elements are most prevalent in that particular story, or chapter of the book. This element (or elements) now becomes the focal point for a career education infusion activity.

In a high-structure situation, this process should have been conducted by each individual student. Using a low-structure model, you would continue with a small group format and a high degree of group interaction to complete this grid.

The grids should now be reviewed by the entire class, to determine whether the other class members agree with the designations of knowledges, skills, and attitudes, and the assignments of elements to each of them. In a high-structure situation this is accomplished by having each student individually make a brief presentation of his/her textbook materials, and report the identified knowledges, skills, and attitudes, and assignment of elements to them. The teacher should then lead a class discussion and review of this presentation to provide the participant with feedback. If a low-structure treatment is being used, the small groups should exchange texts and grid sheets and review each other's grids by examining the original readings and designations.

At this point a curriculum component has been carefully analyzed, and the elements of career education mapped to it. Furthermore, the most prevalent elements have been identified. Now, career infusion activities should be designed that will match the elements to the activity. To do this, use a brainstorming process with a high-structure class. Describe the situation in the text, and the career education elements that map to it. Then encourage all the members of the class to cite various activities, processes, and other techniques for infusing those elements into the curriculum. Using a low-structure situation, perform the same process using the small groups to generate ideas that are then shared with the entire class. When this process is completed the entire class will have generated a sizeable list of activities. Each activity should be no more than a phrase, or sentence to describe its nature. The next sessions of this training program will provide the skills to take these ideas and develop them fully into infusion activities.

The remaining objective to be completed in this lesson is to present the concept of "scope and sequence" as it relates to career education. Due to the nature of the infusion process, there is no "formalized career education curriculum." The elements are developmental, however, and should build upon one another. The handouts for this session include a number of large matrixes that show how these elements develop and build through the various grade levels. Have the students take these handouts and lay them out physically to show the entire matrix. Then find the element and level you have just been working on to see how closely it fits into this developmental matrix. Review one element across grade levels for one sample matrix, and show the students how the concepts develop, become more sopisticated, and call for higher levels of discriminating, analyzing, problem-solving, and application level skills. Encourage full discussion with the entire class to develop the concept of scope and sequence, whether you are working with a high or low-structure format.

The remaining activity is now to fit the activity developed by the groups into the most appropriate box on the matrix, and then develop other activities for that element or elements that move up and down the matrix. That is, the activity should be modified and the concept simplified for younger grades. Conversely, the activity should be made more complex and additional constructs added for older grades. By working through this process the students will be able to see how the full scope of an element is developed over time and how it is sequenced according to the grade levels. If a high-structure approach is used, this should be done with the entire class, while the teacher directs the process and coordinates the discussion. If a low-structure treatment is used the students should complete the matrix development in their small groups and share the results with the entire class.

By conducting this activity, the essential process by which elements are mapped to the curriculum and activities are identified and placed in their proper place in the curriculum will be shown. This will set the stage for subsequent sessions in which students will build upon these concepts and elements in the development of curriculum materials and the design of instructional activities.

SESSION FOUR
MAPPING CAREER EDUCATION TO THE SCHOOL CURRICULUM

OBJECTIVES:

1. Students will identify the knowledge, skills, and attitudes found in components of their school curriculum and career education materials.
2. Students will describe the relationships between the objectives of their school curriculum and career education elements.
3. Students will describe ways in which different learning experiences or activities can achieve the objectives of both school curricula and career education.
4. Students will build upon various learning experiences to relate them to the concept of scope and sequence for career education infusion activities.

HIGH-STRUCTURE GUIDELINES	LOW-STRUCTURE GUIDELINES
1. Each student will select a lesson or activity from his/her textbook and outline in writing the knowledges, skills, and attitudes implicit in it, using the grid sheets provided.	1. Students working in groups will identify activities from their textbooks. The group leader will elicit and record the knowledges, skills, and attitudes implicit in the activities, the grid sheets provided.
2. Students will present their findings to the group. The instructor will record a sampling on transparencies of the Grid Sheets. Students then review each grid sheet and check off the elements that apply to each statement on all three grid sheets.	2. Each group reports its results to the entire class for review and discussion. Then each team continues to use its sheets to check off all the elements that apply to each statement on all three grid sheets.
3. Tabulate the number of checks for each element to determine the predominant element(s) for each grid. Then combine the three grid sheets to determine the predominant element(s) for that particular piece of curriculum.	3. Tabulate the number of checks for each element to determine the predominant element(s) for each grid. Then combine the three grid sheets to determine the predominant element(s) for that particular piece of curriculum.
4. Have entire class review each grid and element designation, as presented by the individual students.	4. Review each grid by having groups exchange curriculum materials and grid sheets to repeat the process and compare results.

SESSION FOUR (Continued)

HIGH-STRUCTURE GUIDELINES	LOW-STRUCTURE GUIDELINES
5. Take one sample activity and grid sheets and use a brainstorming process with the entire class to identify appropriate infusion activities.	5. Have each group brainstorm its original sample activity and grid sheets to identify appropriate infusion activities. Have each group share its results with the entire class.
6. Have students put their matrix handouts together with scotch tape. Then have them place their infusion activities in the most appropriate boxes on this large matrix.	6. Have each group put one of the matrix handouts together with scotch tape. Then have them place their infusion activities in the most appropriate boxes on this large matrix.
7. The entire class should then identify additional activities for that element that would move developmentally up and down the matrix.	7. The entire class should then identify additional activities for that element that would move developmentally up and down the matrix.
8. Teacher and students will discuss possible problems and issues of integrating the elements of career education and subject areas of the school curriculum.	8. Students will return to small groups to share their activities. The group will discuss the problems and issues of integrated school curricula.

RESOURCES:

1. Student textbook and other school curriculum materials.
2. Grid Sheet handouts and transparencies.
3. Handout of sample career education matrixes.

MAPPING CAREER EDUCATION TO THE SCHOOL CURRICULUM

SESSION FOUR - CONTENT OUTLINE

1. School Curriculum
    a. Knowledge
    b. Skills
    c. Attitudes
2. Eight Elements of Career Education
    a. Self Awareness
    b. Educational Awareness
    c. Career Awareness
    d. Economic Understanding
    e. Beginning Competencies
    f. Employability Skills
    g. Attitudes and Appreciations
    h. Decision-Making

RESOURCE MATERIALS

KNOWLEDGE GRID SHEET

CAREER EDUCATION CURRICULUM ANALYSIS

Name ____________
Text ____________
Chapter or Pages ______

Check all boxes that apply

SCHOOL CURRICULUM OBJECTIVES-KNOWLEDGE DOMAIN (Knowledge refers to the specific content, information, facts, concrete data, concepts and applications of information.)	Self-Awareness	Educational Awareness	Career Awareness	Economic Awareness	Decision-Making	Beginning Competency	Employability Skills	Attitudes & Appreciations	Tot
1.									
2.									
3.									
4.									
5.									
6.									
7.									
8.									
9.									
10.									
TOTALS									

SKILLS GRID SHEET

CAREER EDUCATION CURRICULUM ANALYSIS

Name ____________
Text ____________
Chapter or Pages ______

Check all boxes that apply

SCHOOL CURRICULUM OBJECTIVES SKILLS DOMAIN (Skills refer to the transferable and performance characteristics that can be applied in various situations. See the transferable skills list in Session Two as a guidesheet for this grid.)	Self-Awareness	Educational Awareness	Career Awareness	Economic Awareness	Decision-Making	Beginning Competency	Employability Skills	Attitudes & Appreciations
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
TOTALS								

ATTITUDES GRID SHEET

CAREER EDUCATION CURRICULUM ANALYSIS

Name ____________
Text ____________
Chapter or Pages ______

Check all boxes that apply

ATTITUDE (AFFECTIVE) DOMAIN (Attitudes refer to the particular feelings, attention, values, and orientations that are inherent in a situation or person.)	Self-Awareness	Educational Awareness	Career Awareness	Economic Awareness	Decision-Making	Beginning Competency	Employability Skills	Attitudes & Appreciations
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
TOTALS								

ELEMENTS OF CAREER EDUCATION	CAREER AWARENESS	ECONOMIC AWARENESS	SKILL AWARENESS, BEGINNING COMPETENCE	EMPLOYABILITY SKILLS
K	Know the jobs of home members and school personnel.	Identify within the home unit: What is available, needed, wanted, luxury.	Identify different tools for different careers.	Understand the need to share and cooperate to complete tasks.
1	Relate home and school jobs to community functions.	Be aware of the exchange of goods and services.	Be aware that school is a job that requires mastery of basic skills for success.	Acquire the ability to develop rules with others, accept direction and take responsibility.
2	Gain knowledge of jobs necessary to maintain the community and their dependency on each other.	Understand the money exchange system vs. the barter system.	Understand the use of various communication tools and their effect on lifestyle and future career choice.	Identify styles of interaction that contribute to individual and group goals.
3	Compare local jobs to jobs in general.	Understand our monetary system.	Undderstand the use of additional tools and their effect on lifestyle and future career choice.	Understand how to resolve personal conflict between individual and group goals.
4	Group cluster jobs according to similarity of job performance.	Understand the process of production and distribution of goods and services.	Understand and master the use of tools for measurement and extension of energy in simple machines.	Participate in active groups in order to develop individual and group goals.
5	Understand the impact of career clusters on lifestyles.	Be aware of the law of supply and demand.	Participate in and understand the processes of mass production. Mastery of several measurement tools.	Understand how to relate the school environment to society at large and the need for structure and order.

ELEMENTS OF CAREER EDUCATION	APPRECIATIONS & ATTITUDES	SELF AWARENESS	DECISION-MAKING	EDUCATIONAL AWARENESS
6	Understand the relationship between occupations and their growth and development.	Select career clusters as related to individual strengths and weaknesses.	Apply the decision-making process to home and social related problems.	Understand the relationships between people and their effect on the accomplishment of tasks.
7	Appreciate all forms of human endeavor and work.	Choose career clusters as related to interests and abilities.	Weigh long and short range effects of different alternatives to specific problems.	Identify and understand values as they relate to life-style.
8	Understand the impact of work in one's life and resulting need to make a meaningful career choice.	Develop self perception of abilities and interests as related to actual career requirements.	Apply decision-making process to study of careers.	Identify present life-style and conditions determining that style.
9	Relate attitudes and awareness to specific or related job clusters.	Build reality awareness perception of "where I am compared to where I want to be."	Analyze and refine previous career decision based on counseling, work experience, and all available information.	Determine a tentative personal schedule to acquire necessary and desired special skills.

CAREER CLUSTERS - The world of work clusters, around which Career Education can be developed, as suggested by the United States Office of Education.

--BUSINESS AND OFFICE OCCUPATIONS
--MARKETING AND DISTRIBUTION OCCUPATIONS
--COMMUNICATIONS AND MEDIA OCCUPATIONS
--CONSTRUCTION OCCUPATIONS
--MANUFACTURING OCCUPATIONS
--TRANSPORTATION OCCUPATIONS
--AGRI-BUSINESS & NATURAL RESOURCES OCCUPATIONS
--MARINE SCIENCE OCCUPATIONS
--ENVIRONMENTAL CONTROL OCCUPATIONS
--PUBLIC SERVICES OCCUPATIONS
--HEALTH OCCUPATIONS
--HOSPITALITY AND RECREATION OCCUPATIONS
--PERSONAL SERVICES OCCUPATIONS
--FINE ARTS AND HUMANITIES OCCUPATIONS
--CONSUMER AND HOMEMAKING-RELATED OCCUPATIONS

ELEMENTS OF CAREER EDUCATION	APPRECIATIONS & ATTITUDES	SELF AWARENESS	DECISION-MAKING	EDUCATIONAL AWARENESS
10	Understand the importance of all careers and their contribution to society.	Relate personal values and influence of other's values on career choice.	Select a career cluster for in-depth analysis.	Acquire special skills needed for predicted or or desired life-style.
11	Make a commitment to the selection of a career based on individual attitudes, values, and education.	Modify and/or accept differences between the indidual's personal values and the influence of others on career choices.	Choose a tentative career.	Assess and implement a personal plan to obtain the necessary or required special skills.
12	Understand the tasks required within chosen job cluster(s) and develop the specific skills needed.	Develop self confidence in anticipated career choice.	Be aware that career decisions are flexible at the expense of time, effort, and money.	Plan the acquisition of the necessary skills remaining for a chosen life-style.
13	Analyze career and life-style decisions as related to planned goals.	Apply self awareness experiences to assure success in a realistic career and life-style plan.	Formulate plan for in-depth study of selected career clusters.	Integrate educational experiences with applied experiences in your chosen career.
14	Integrate the career and life-style choice of the individual into society.	Function within career decisions as a self-sufficient, happy citizen.	Apply all resources to chosen career.	Formulate future career options and perform within the established requirements.

ELEMENTS OF CAREER EDUCATION	APPRECIATIONS & ATTITUDES	SELF AWARENESS	DECISION-MAKING	EDUCATIONAL AWARENESS
K	Understand the importance of each individual in the function of the home unit.	Understand the rights and responsibilities of the individual at home and school.	Become aware of cause and effect in making decisions.	Be aware of roles in the home and similar roles in the school.
1	Learn to appreciate all individuals in the school setting.	Know the importance of "self" as an individual and as a worthy member of groups.	Be aware of the consequences of personal decision-making.	Understand the similarities and differences between home roles and school roles.
2	Be aware of the importance of getting along with other people.	Be aware of the capabilities and limitations of individuals.	Analyze alternatives to problems and be able to express them verbally and in written form.	Relate basic skill development to life roles within the community.
3	Realize the contributions of community members to the student and others.	Recognize attitudes toward learning tools and their value in achieving individual goals.	Identify components of decision-making process.	Understand the similarities and differences between life roles and learned skills.
4	Be aware of the wage earner's job and how it affects the home unit.	Relate the mastery of educational skills to individual success.	Realize the need for goals in life-style decisions.	Be aware of individual strengths and weaknesses as related to peer groups.
5	Analyze working roles as to advantages and disadvantages.	Be aware of the individual's rights and responsibilities as a worker.	Apply decision-making process to school related problems.	Understand the relationships between the role of the individual, his environment, and the roles of selected adults.

ELEMENTS OF CAREER EDUCATION	CAREER AWARENESS	ECONOMIC AWARENESS	SKILL AWARENESS, BEGINNING COMPETENCE	EMPLOYABILITY SKILLS
6	Recognize abilities and skills required for various career clusters.	Understand that specialization creates an interdependent society.	Understand tools and processes used in research. Simple machines combine to produce complex machinery.	Identify the individual's role in society and its effect on increased personal satisfaction and improved group achievement and morale.
7	Understand the relationships between attitudes and values, and career clusters.	Develop the concept of management of finances (earning, spending, borrowing, saving).	Master the use of tools and processes used in research in the physical and social sciences. Understand use of tools in selected career clusters.	Understand the social and personal relationships and and their effect on employment.
8	Understand the relationships between interests and abilities and career clusters.	Understand economic potential as related to career clusters, i.e., relate cost of entering a field to future expected income.	Use basic tools found in career clusters.	Relate personal and social insteraction skills to career clusters.
9	Based on understanding of interests, values and abilities, study career clusters. Survey courses in career clusters.	Understand the Tools of Business: Read and interpret tables, graphs, and charts used as a consumer.	Match necessary skills and processes with selected career clusters.	Understand the skills necessary to acquire, maintain and progress in employment.

ELEMENTS OF CAREER EDUCATION	CAREER AWARENESS	ECONOMIC AWARENESS	SKILL AWARENESS, BEGINNING COMPETENCE	EMPLOYABILITY SKILLS
10	Explore the career clusters in depth based on interests, values, and abilities. Gain planned work experience.	Relate legal and financial consideration to career clusters in general.	Match individual abilities and interests with skills and processes needed in career clusters.	Develop personal and social interaction skills related to in-depth study of one career cluster.
11	Identify necessary abilities required in a selected career.	Understand the relationship of legal and financial considerations to a specific career cluster and personal and family matters.	Develop skills basic to the chosen career cluster.	Develop employability skills necessary for the anticipated job. Plan alternatives for job placement.
12	Reassess abilities, interests, and attitudes according to selected career and life-style. Determine further requirements needed.	Understand the financial and legal instruments that govern and protect the worker. Relate this to various roles assumed in the economy.	Master the skills basic to chosen career cluster and develop skills related to a specific job.	Explore at least three alternatives for job placement through work experience.
13	Refine or redirect career knowledge of field through counseling and guidance, or survey courses in career clusters.	Understand and apply knowledge of economic responsibilities to career decisions.	Function at acceptable levels of competency as established by your chosen career.	Demonstrate through planned work experiences knowledge of employable skills.
14	Reassess career goals. Identify and understand life-styles as related to advancement in career choice.	Be able to project economic implications of career decisions to your chosen future life-style.	Master proficiency of the chosen career as established by certification, license, and/or required standards.	Integrate all knowledge and experiences into planned career.

SAMPLE OBJECTIVES

ELEMENTS	K-1	2-3	4-6
SELF-AWARENESS Awareness of the components that make up self.	After looking in a full-length mirror, the learner will orally describe his physical characteristics, such as height, eye color, hair color, approximate body weight, etc.	The learner will verbally list three tasks which he likes to do in school.	The learner will describe in writing, how a change in his social group, community, or family has affected his life (in terms of feelings about himself and other people and things).
EDUCATIONAL AWARENESS Awareness of the connection between education (in and out of school) and life roles and goals.	During a teacher-led discussion, the learner will orally describe two things which he had learned in school and used outside of school.	The learner will orally relate two things which he has learned outside of school which he would like to learn more about in school.	After going on a school field trip, the learner will orally describe how such a school-sponsored trip would help someone get a better idea of his true career interests.
CAREER AWARENESS Awareness of the world of life careers, including occupational careers.	During a teacher-led discussion, the learner will orally describe (in superficial terms) the occupations of a parent(s) and/or of two neighbors.	After a brief discussion of the 15 USOE occupational clusters, the learner will choose a cluster (using pictures) and give one occupation which fits into that category.	After orally listing three occupations, the learner will list the general skills required for one of those occupations (such as education, physical skills, etc.).
ECONOMIC AWARENESS Awareness of the functions of production, distribution, and consumption in relation to the individual and society.	Given a picture of several common objects, the learner will circle the two articles which cost the most.	In a group discussion setting, the learner will describe how he saves money or other things, and give one reason.	Given a list of five common occupations, the learner will verbally describe the economic rewards related to each and state possible reasons for the differences.

SAMPLE OBJECTIVES

ELEMENTS	K-1	2-3	4-6
DECISION MAKING Applying information and values to the process of making rational decisions.	The learner will observe the work of two people in the neighborhood and relate his impressions to the others in the class.	The learner will relate a decision-making situation in which he had to decide something, and explain why the choice was made that way.	After taking part in a group project which requires division of labor, each learner will explain how his task suited his abilities and interests, and how the decision to do the task was arrived at.
BEGINNING COMPETENCY Development of cognitive and psychomotor skills needed for job performance.	Given six tin cans of different diameters, the learner will arrange the cans in some order and orally explain the order involved.	Given common carpentry tools appropriate to the learner's size and age, the learner will demonstrate the proper safety procedures for using two of the tools.	Given the task of organizing a simple group activity, the learner will list the major steps which must be taken to achieve the task.
EMPLOYABILITY SKILLS Social skills and communication skills appropriate to occupational career placement.	Given a teacher-directed group activity, the learner will participate and later relate how he participated.	Given a verbal list of the tasks which must be performed around the classroom, the learner will choose a task and state his reason for choosing that task.	Given 20 tasks which are examples of data-oriented tasks, and thing-oriented tasks, the learner will, in writing, properly categorize the tasks.
ATTITUDES AND APPRECIATIONS Feelings for role relationships of self and others in a societal and occupational context.	Given a graphic representation of people involved with several different types of common occupations found in the community, the learner will explain orally how one person helps the community.	Given a verbal list of various common occupations, the student will list why he believes one of the occupations "is the most important."	After taking a bus tour through the community, the learner will point out three service occupations and verbally describe why/how these occupations are valued by society.

SAMPLE OBJECTIVES

7-9	10-12	POST-SECONDARY AND ADULT EDUCATION	OUTCOMES
The learner will verbally describe three occupations which he finds interesting and relate these to his personal characteristics.	Given a list of 10 work environments, the learner will list the three environments, in order of priority, in which he would feel most comfortable working, as indicated by his personal characteristics.	Given a list of life roles (such as parent, neighbor, group member), the learner will orally describe how he will choose an occupation which will be supportive of goals in the other career areas.	SELF-IDENTITY Being aware of of own individual characteristics which make up his self, including a consistent value system.
The student will describe, in writing, three things learned in school which have helped him in accomplishing some project or undertaking outside of school.	After having interviewed representatives of three community organizations, the learner will describe, in writing, how the school could advance career perceptions of other students by working with those community organizations.	After visiting the site of an an occupation which interests him, the learner will suggest three ways that the educational institution could improve its career planning activities for that occupation.	EDUCATIONAL IDENTITY Ability to make educational plans for advancing career goals.
In a role-playing situation simulating a meeting with a company personnel manager, the learner will describe the entry level skills which are required for two occupations in which he is interested.	Given a list of occupations, the learner will choose two occupations which are of interest to him, and will describe the entry requirements and the plans he has for fulfilling those requirements.	Given a verbal description of hypothetical life careers and occupational careers of an individual, the learner will describe how this coincides or differs from his ideas on life and occupational careers.	CAREER IDENTITY Establishment of priorities and roles for life careers and occupational careers.
After a discussion and visit to different neighborhoods in a city or town, the learner will orally describe three effects which increased income would have on the people of any one neighborhood.	After listening to a panel discussion concerning consumer protection services offered by governmental agencies, the learner will debate the adequacy of such agencies in practical terms to the consumer.	After analyzing a hypothetical individual's economic situation, the learner will orally describe how the individual might improve upon the situation, and then devise a plan for implementing the suggested improvements.	ECONOMIC UNDERSTANDINGS Analyzing and resolving problems concerning the economic environment in which he lives.

SAMPLE OBJECTIVES

7-9	10-12	POST-SECONDARY AND ADULT EDUCATION	OUTCOMES
Given a problem to solve and a hypothetically "correct" solution, the learner will evaluate his performance in making the decisions involved in arriving at the solution to the hypothetical problem.	After engaging in on-the-job experiences in an occupation which interests him, the learner will list, in writing, three reasons for deciding to continue in that occupational area of change.	The learner will, orally or in writing, describe the process (information and values) which led to choosing a particular occupation.	CAREER DECISIONS Setting a career direction with plans for accomplishing career goals.
After viewing a task during a field visit to an occupational area of his interest, the learner will list the materials, tools, and personnel needed to accomplish the task.	Given a list of materials and/or personnel, the learner will choose those which are necessary for completing a specific task in his area of occupational interest.	After observing another learner who is engaged in the same occupational area, the student will orally or in writing, prepare a critique on the performance of the first learner and list suggestions on how the performance could be improved.	EMPLOYMENT SKILLS Competence in the performance of career-related skills.
Given a list of 3 occupations per USOE job cluster, the learner will indicate two clusters and three occupations which agree with his interests and abilities.	Given a previously stated learner career goal the learner, in writing, will describe his plans for adjusting to future career plans.	After seeing a worker-employee role-playing situation depicting a developing point of friction, the learner will orally explain how the friction might be avoided by action of the worker and employer.	CAREER PLACEMENT Ability to use skills in a career situation.
After having taken a field trip to visit installations of the municipal government, the student, in writing, will describe 2 occupations which are little known but valuable to the efficient functioning of the community.	After working on-the-job for one week in an occupation which interests him, the learner will orally describe the interpersonal relationships which were observed and possible ways of improving interpersonal interaction.	After relating a situation from personal experience which involved role confusion, overload and/or conflict, the learner will analyze ways in which the situation could have been handled to eliminate the particular problem area.	SELF-SOCIAL FULFILLMENT Active and satisfying role in occupational society.

CHAPTER V

INFUSING CAREER AWARENESS INTO THE SCHOOL CURRICULUM

This chapter represents the first time that two sessions of the staff development program (five and six) have been combined. Thus, two instructional sessions are represented by one lesson or instructional unit. This allows for a more flexible approach regarding where you might stop at the completion of the first session, and where you should start at the second session. This will depend upon how rapidly you move the group through the topic, and how much time they want for different aspects of the content.

The goal of this double session is threefold. First, it is planned to provide the participants with an opportunity to personally experience a variety of career education infusion activities. The participants should be encouraged to conduct and experience these activities much as the elementary school students would complete them.

The second major goal of this lesson is to develop the guidelines that the participants will use to write infusion activities. The session will not produce curriculum specialists with highly developed skills in such areas as formatting, objectives, evaluation, etc. It will, however, address and identify some of the general guidelines that should be considered when writing an infusion activity. One such example of a guideline is that at least two career education elements should be included in every single infusion activity.

The third objective of this activity is to have the teachers actually write several infusion activities themselves.

A general time allocation plan would be for the participants to experience the infusion activities and develop the guidelines for writing infusion activities in the first session. The second session would be used to review the guidelines and have each teacher devote at least an hour to writing individual infusion activities. The second session would be concluded by having the participants share the different activities that they have designed.

There are several distinctions between the high-structure group and the low-structure group for these sessions. Basically you will process the class through the session on a large group basis in the high-structure group, and have the students write the infusion activities on an individual basis.

If you choose the low-structure approach, the participants will tend to generate their own knowledge, work in groups that will be reconfigured differently at different times, and your role will be more as a facilitator, receiving the data and transfering it to the chalkboard.

You have been provided a sheet with guidelines for infusion activities. It is important to note that the students will develop additional guidelines above and beyond the ones provided on the guideline sheet. This is both acceptable and desirable. The guideline sheet provided is not meant to be inclusive. You will engage in a process that will produce a new master guideline list for that class, which will both include and supplement the statements provided.

Begin the session by having the students first engage in the activities provided. Have them complete a fair number of activities. Many more have been provided than you will actually use. It is recommended, therefore, that you choose the ones that you prefer, and distribute them to the students. Or, you can leave them all on a table and have students pick the ones that they're interested in examining and conducting. This should be done individually for the high-structure approach. Small groups and teams should be used in the low-structure model.

The second activity will be to examine and develop further the guidelines. High-structure calls for a whole group process coordinated through the instructor and controlled from the front of the room. The low-structure process uses small groups, a reporting out, and then consensus to develop one, synthesized list. The writing activity will again be on an individualized process for the high-structure approach. The continued use of *different* small groups is preferred if you choose the low-structure design.

It is recommended that each participant be asked to develop two more infusion activities as a homework assignment. If this program is offered for credit, these activities should be a major ingredient in establishing a final grade for each participant. In this instance, the guideline form which they developed as a class (and which is the composite of the statements provided, plus what they have developed) should be used as the criteria for grading each activity submitted.

SESSIONS FIVE AND SIX
INFUSING CAREER EDUCATION INTO THE SCHOOL CURRICULUM

OBJECTIVES:

1. The students will analyze career education activities by conducting several activities provided by the instructor.
2. The students will develop guidelines for career education infusion activities after analyzing existing activities.
3. The students will develop career education infusion activities for their classroom settings.

HIGH-STRUCTURE GUIDELINES	LOW-STRUCTURE GUIDELINES
1. Distribute the "Shipwreck Activity" and divide the class into three small groups.	1. Divide the class into teams of 2. Give each team a different career education infusion activity from the handouts provided. Ask each team to actually complete the activity as if they were elementary school students. After completing this activity, have them do others for a total time period of 1-1 1/2 hours.
2. Have each group conduct procedures 1-3 in this activity (allow 10 minutes); then 15 minutes for groups to report out their results to the class. Make a master list on the chalkboard. Repeat this process for step 5. Then conduct steps 6-8 with the class as a whole.	2. Conduct a general discussion about the activities and allow students to express their feelings about these activities.
3. Conduct a general discussion of the activity, and identify the career education elements embedded in this activity.	3. Regroup the class into groups of 3 - so that each group consists of individuals who did not work together in the first half of the session. Ask each group to identify guidelines for an infusion activity that it deemed important, based upon their use of a variety of materials.
4. Distribute the "Work Values" handout and ask each student to complete it. Then conduct a discussion of how students responded to the various items. Identify the career education elements embedded in this activity.	4. Work with the entire class to identify the guidelines considered essential for an infusion activity. Distribute the "Guidelines for Developing Infusion Activities," and discuss them with the class.

SESSIONS FIVE AND SIX (Continued)

HIGH-STRUCTURE GUIDELINES	LOW-STRUCTURE GUIDELINES
5. Conduct a general class discussion of these two activities - their differences and similarities. Lead this into a general discussion of the guidelines for infusion activities. Then distribute the "Guidelines" handout and develop a master guideline list based both on the handouts and inputs from the class.	5. Develop a master guideline list based both on the handout and inputs from the class.
6. Distribute and discuss the "components" and "formatting" handouts as additional input for the process of developing infusion activities.	6. Distribute and discuss the "components" and "formatting" handouts as additional input for the process of developing infusion activities.
7. Provide the other handout activities to the class and check these activities against the master guidelines developed.	7. Have the class divide into small groups and have each group develop at least one infusion activity. More may be developed as time permits.
8. Have each student develop at least one infusion activity; more, if time permits.	8. Process the group activities for the entire class to review.

RESOURCES:
1. 22 Career Awareness Infusion Activities.
2. Handout - "Guidelines for Developing Infusion Activities" (one master and one student-developed).
3. Handout - "Components of Career Education Infusion Activities."
4. Handout - "Formatting Concerns for Career Education Infusion Activities."

ASSIGNMENT: Each student should develop at least two more infusion activities and submit them to the instructor. The instructor should grade them based on the master guideline criteria list developed by the class.

INFUSING CAREER AWARENESS INTO THE SCHOOL CURRICULUM

SESSIONS FIVE AND SIX - CONTENT OUTLINE

I. Guidelines for Developing Infusion Activities

  a. multiple elements
  b. natural outgrowth of educational objective
  c. experiential
  d. contemporary in focus
  e. resources needed

II. Components of Career Education Infusion Activities

  a. objectives
  b. activities
  c. resources
  d. evaluation
  e. other specifications - see handout

III. Formatting Concerns for Infusion Activities

  a. readability
  b. illustrations
  c. packaging
  d. sequencing
  e. time frames
  f. audience
  g. other specifications - see handout

RESOURCE MATERIALS

MASTER GUIDELINES FOR DEVELOPING INFUSION ACTIVITIES

1. There should be a clear expression of at least two career education elements in the activity.

2. The activity should be an outgrowth of one educational objective in the ongoing curriculum.

3. The activity should not be contrived. It should be a logical, natural outgrowth of the curriculum, consistent with the unit or subject under study.

4. The activity should be experiential in nature, with the students functioning as active participants in the process.

5. The activity should be contemporary in its focus; activities and values should be related to current issues and events in society.

6. The activity should include the forms, materials, and resources needed for its successful implementation.

7. Several activities may be used to achieve one educational objective.

STUDENT-DEVELOPED GUIDELINES FOR CAREER EDUCATION INFUSION ACTIVITIES

1. Include interaction of work attitudes.
2. Exposure to career choices and occupational information.
3. Human relations skills and self-awareness.
4. Utilize a variety of domains and levels of learning.
5. Provide a variety of instructional models to match learning styles.
6. Interdisciplinary across subject areas and environments.
7. Consider the student -- sociological implications.
8. Sequence activities developmentally.
9. Clearly stated goals and objectives.
10. Implementation directions for teacher.
11. Implementation directions for learner.
12. Stated outcomes.
13. Activity relevant to subject area.
14. Logically organized and attractively arranged; easy to read (appropriate to level).
15. Concern for student motivation.
16. Provide for immediate feedback.
17. Hands-on experience.
18. Mapped to a broader goal.
19. Evaluation checklist and clear procedures.
20. Specify resources and materials.
21. Periodic student self assessment.
22. Materials geared to intellectual level of students.
23. Activities should map to the objectives of the course.

COMPONENTS OF CAREER EDUCATION INFUSION ACTIVITIES

1. Resources
2. Evaluation
3. Specify objectives
4. Specify rationale
5. Prerequisites
6. Follow-up suggestions
7. Physical facilities
8. Time
9. Model of teaching -- instructional (mode) -- teacher-student interactions
10. Instructions
11. The activity itself
12. Closure
13. Overview (introduction)
14. Title
15. Specification of student population
16. Number of students

FORMATTING CONCERNS FOR CAREER EDUCATION INFUSION ACTIVITIES

FORMATTING CONCERNS	FOR STUDENTS	FOR INSTRUCTORS
Illustrations	Age-appropriate	Task appropriate
Type-face	Appropriate for reading level	Ease of readability
Packaging	Durable Attractive	Easily stored
Depth of coverage	Appropriate to academic level	Same
Readability	Appropriate to reading level	Succinct
EEO concerns	Content, pictures, etc., non-biased as to sex, race, etc.	Same
Binding	Durable	Appropriate for ease of duplication
Title	Relevant	Appropriate for referencing
Sequencing	Follows logical/ spiralling order	Sequenced for planning
Procedures	Clear directions; appropriate for age and grade	Comprehensive
Suggested time frame	Appropriate for attention span and age	Appropriate for instructional time
Required materials	Multi-modal whenever possible	Clearly listed
Subject area	Relevant; attention-gathering	Related to curriculum

Other Concerns

Audience
Objectives
Color
Portability
Visual Impact
Texture

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Title: SHIPWRECK ACTIVITY

Suggested Instructional Goal:

Given the opportunity to participate in the "Shipwreck Activity," the student will be able to describe (in a teacher determined method), the contrast between survival standards of living and their own standard of living.

Grade Level:

4-8

Subject Matter Area:

Language arts, and social studies

Time:

One to ten 45-minute periods

Number of Students:

Total Class

Materials:

List of items that could be used for survival (enclosed).
Island Map (enclosed)

Procedures:

1. Give the students the list of items and map.
2. The teacher will read "Shipwreck" to the class. Instructions (See sample that follows).
3. In small groups, students choose 10 items from the list to take to the island to help insure their survival.
4. Groups tell what they chose and why.
5. Students identify a home-site on the map and identify tasks (jobs) for each person in order to help insure survival.
6. Groups tell why they chose their home-site, and how they identified the tasks.
7. Each student describes his life style on the island (written, oral, drawings, etc.).
8. Students discuss similarities and differences between life style on the island and life style at home (standard of living).

EXPANSION: Groups could become communities placed on one large class map. Communities could become involved in bartering for goods and services (also see Simulation Earth inside).

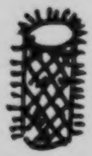
Name ______________________________

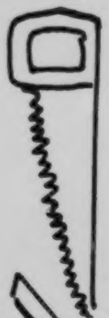
SHIPWRECK

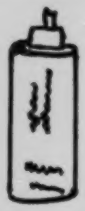
Suppose you are the only survivor from a whipwreck. There are many items on the boat that you could save - but you can only carry ten things with you to a nearby island before the boat sinks. What ten things would you bring and why? Tell how you would keep alive on the island by using the ten things.

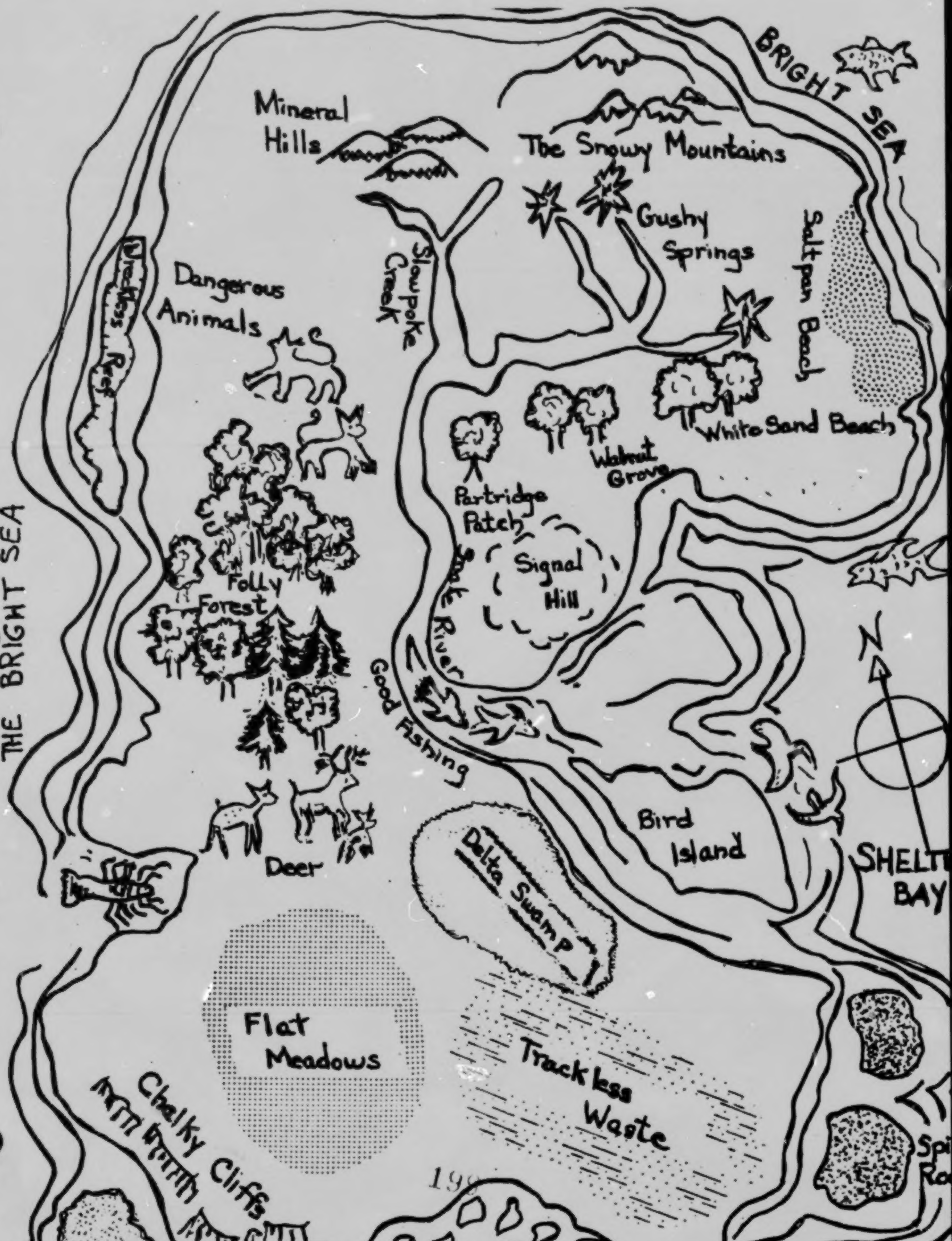
tooth brush
watch
blanket
radio
box of soda crackers
folding chair
model car
a book
box of matches
a hammer
your suitcase of clothes
paper and pen
box of nails
gun bullets
comb
mirror

hair rollers
teen magazine
a saw
canned food
can opener
a barrel
cot
soap
towel
pocketknife
compass
map
bubble gum
a drinking glass
fishing pole
glue








Mineral Hills
The Snowy Mountains
BRIGHT SEA
Gushy Springs
Saltpan Beach
Dangerous Animals
Slowpoke Creek
Wreckless Reef
White Sand Beach
Walnut Grove
Partridge Patch
Signal Hill
Snake River
Folly Forest
THE BRIGHT SEA
Good Fishing
N
Bird Island
SHELT
BAY
Delta Swamp
Deer
Flat Meadows
Trackless Waste
Chalky Cliffs
Spi
Ro
1

WORK VALUES

Directions: Here are a number of sets of alternatives. Read them over and decide in each case whether you would prefer choice A or choice B. Check your preference in the space provided. There are no right or wrong answers; either alternative may be right for you. In class discussions on this activity sheet, be prepared to explain your choice.

Which would you choose?

A. A job that pays $250 a week but involves constant travel
B. A job of the same type paying only $120 a week but allowing you to stay home

A. To live in a small quiet town but not be able to do the type of work you are interested in
B. To get into the field you like but have to move to a large city

A. To marry early and have a family
B. To work for a while before marriage

A. To get above average grades in high school but to have to give up many social activities in order to devote your time to study
B. To get just-passing grades and have enough time left after study to keep up a full schedule of social activities

A. To be an outstanding athelete
B. To be a student government leader

A. To defend your beliefs even though you know your action may make you less popular with some of your classmates
B. To keep silent about your beliefs in order to keep the approval of your classmates

A. To go to a concert
B. To go to a ball game

A. To spend your free time just having fun with your friends
B. To give your free time to community service projects

A. To spend your free time in reading or quiet activities
B. To keep yourself busy by joining clubs and working on committees

A. To have a job and independence immediately after high school
B. To give time to further education or training in order to qualify for a better job

A. To make lots of money
B. To have prestige, be a leader, and have others look up to you

Summary Discussion: What are the important values for you in establishing priorities? Do you actually take action in your life consistent with your priorities? Give examples.

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THE CENTIMETER HOUSE

Overall Goal: To use the metric system of measurement in applying mathematical concepts of length, width, height, perimeter, and area. To follow instructions requiring mathematical specifications.

Specific Learning Objective: When the student is provided with a set of plans for the construction of a house, he will construct the house according to the directions and solve the required problems related to linear and area measure, using the metric system of measurement.

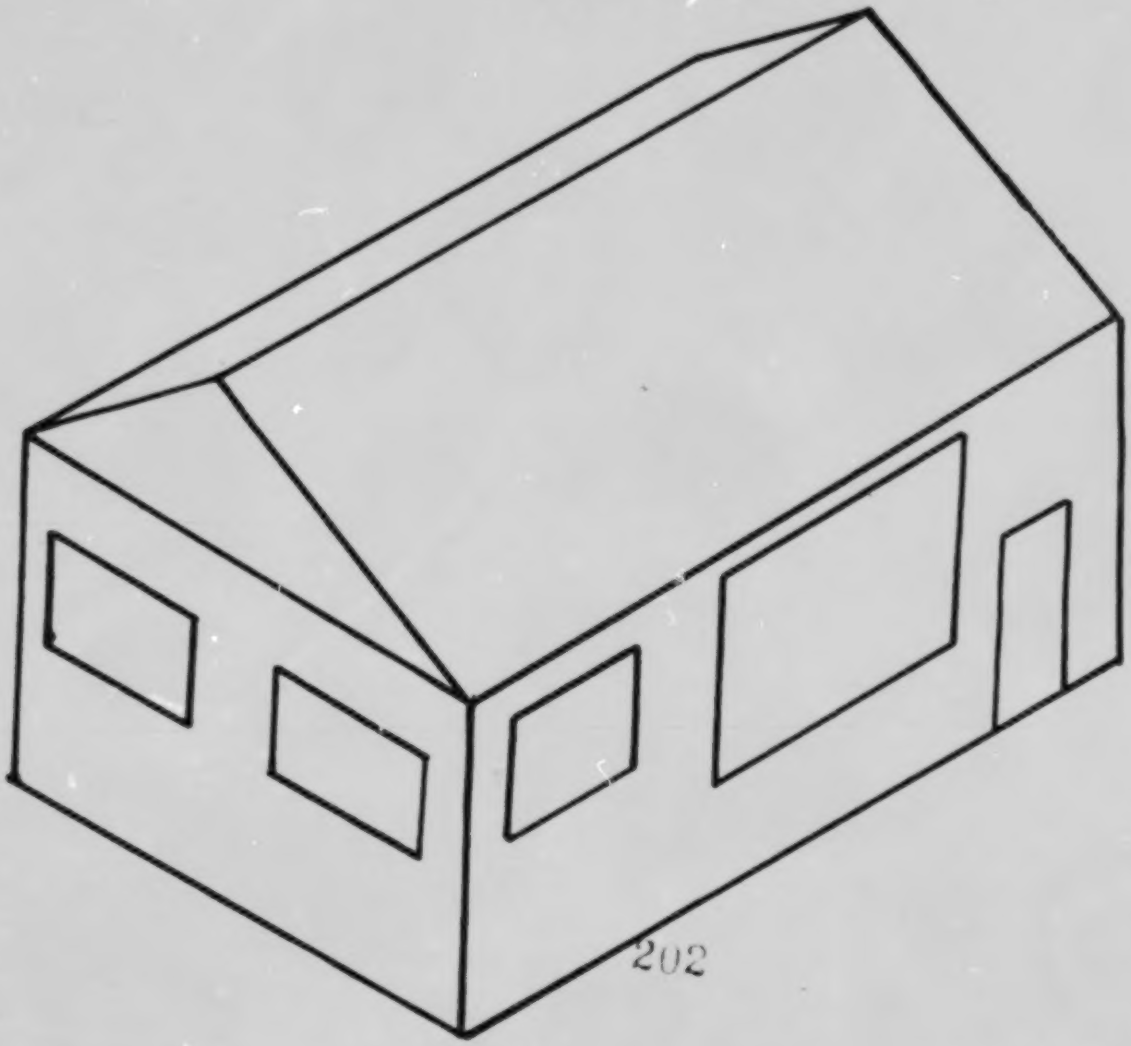
Supplies and Materials: Set of plans for the centimeter house: 6 sheets of 8 1/2" x 11" cardboard or oaktag or construction paper; pair of scissors; 25 centimeter ruler; bottle of white glue or rubber cement; roll of scotch tape; pencil.

Notes to the Teacher: This project calls for the construction of a centimeter house and may lead to many related technology areas. It is critical, however, that the student use the metric system with as little instruction as possible, thereby forcing the student to immediately think in metric terms, rather than attempt to convert math from the English system.

Instructions for the Student: In this activity you will be constructing your own house, and then answering some questions about it using the centimeter ruler attached with this package.

1. Your plans contain a roof, floor, two sides, front and back of a house. First glue each of these sheets to a separate sheet of cardboard, using the glue provided.
2. Cut the parts out with the scissors.
3. Assemble the house, using the roll of scotch tape.
4. Cut out the 25 centimeter (cm) ruler.
5. Answer the questions on each of the sides of the house, using your ruler.
6. Answer the questions on the separate sheet, which serves as the roof of your house.
7. Once your house is finished you may want to decorate it. If you do, proceed to Activity #11 - Interior and Exterior Decoration.

PLANS for CENTIMETER HOUSE



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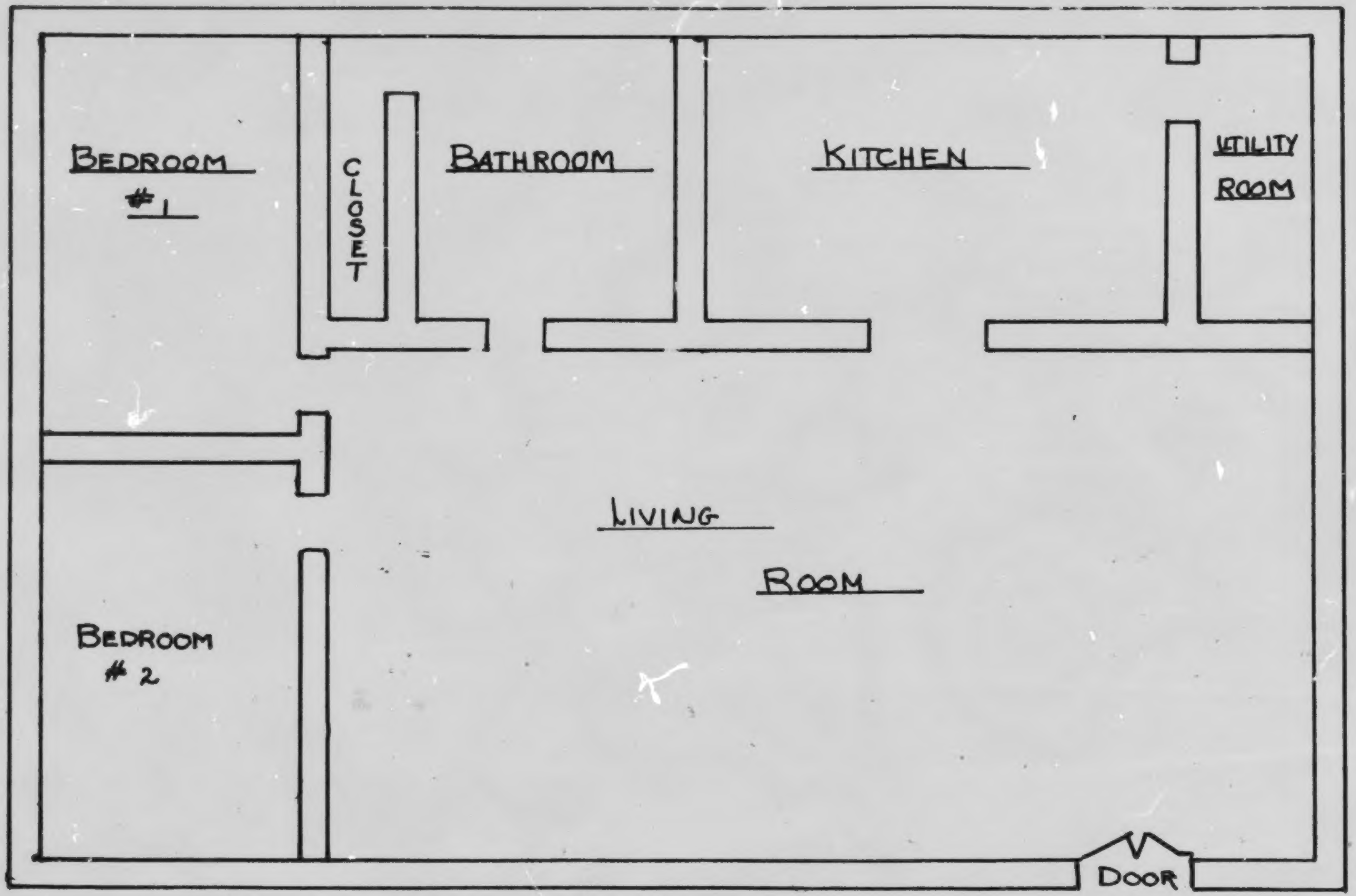
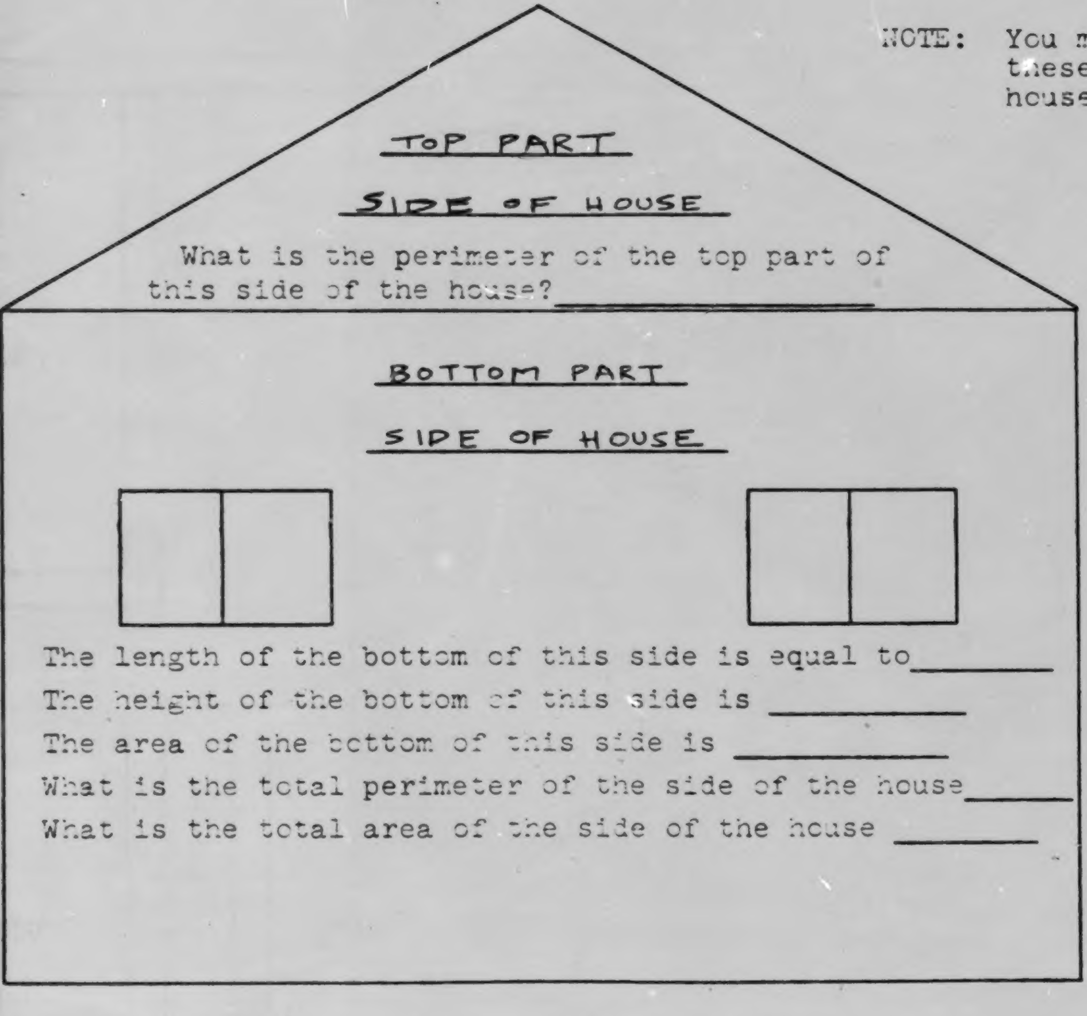

BEDROOM #1
CLOSET
BATHROOM
KITCHEN
UTILITY ROOM
LIVING ROOM
BEDROOM #2
DOOR

FLOOR PLANS

NOTE: You must make two of these sides for each house.



TOP PART

SIDE OF HOUSE

What is the perimeter of the top part of this side of the house? ________________

BOTTOM PART

SIDE OF HOUSE

The length of the bottom of this side is equal to________

The height of the bottom of this side is ___________

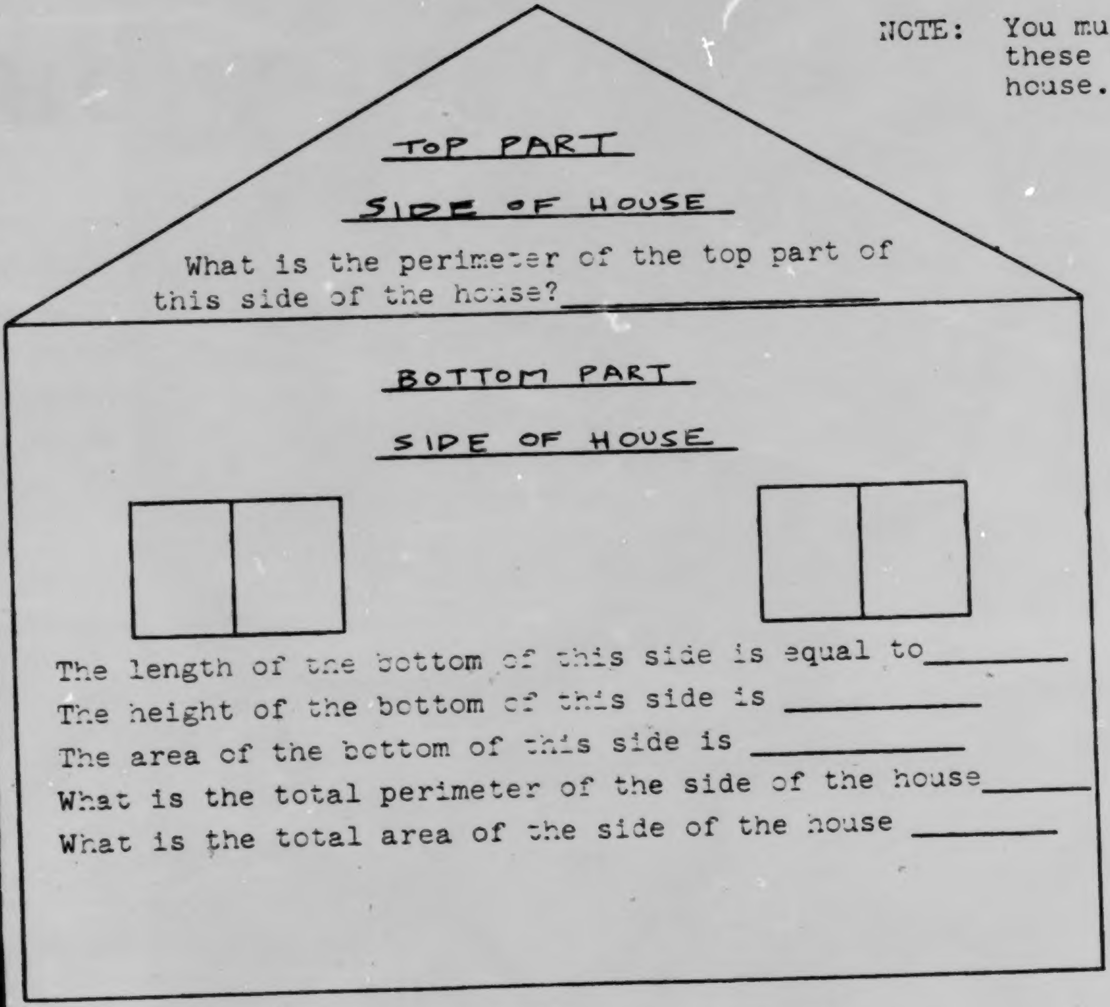
The area of the bottom of this side is ____________

What is the total perimeter of the side of the house______

What is the total area of the side of the house ________

SIDE OF HOUSE

NOTE: You must make two of these sides for each house.



TOP PART

SIDE OF HOUSE

What is the perimeter of the top part of this side of the house?__________________

BOTTOM PART

SIDE OF HOUSE

The length of the bottom of this side is equal to________

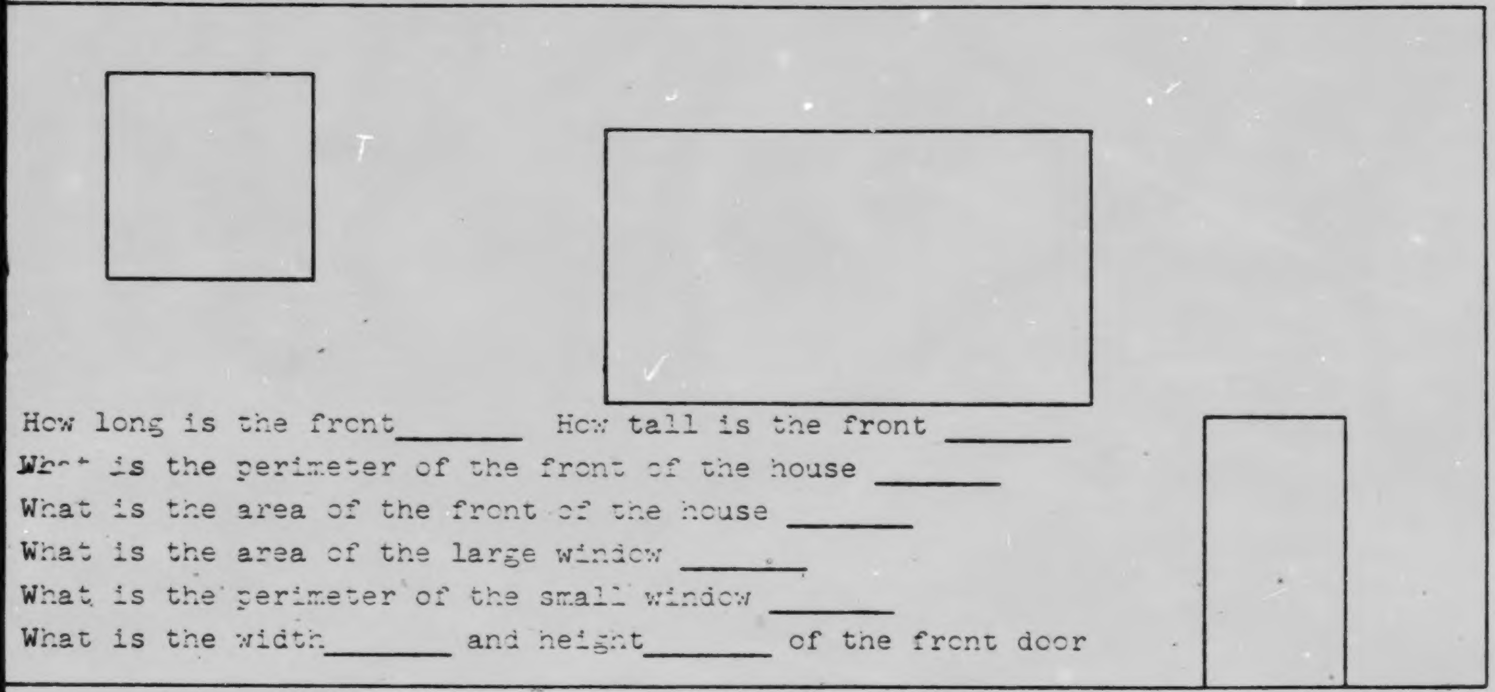
The height of the bottom of this side is ___________

The area of the bottom of this side is ____________

What is the total perimeter of the side of the house______

What is the total area of the side of the house ________

SIDE OF HOUSE



How long is the front______ How tall is the front ______

What is the perimeter of the front of the house ______

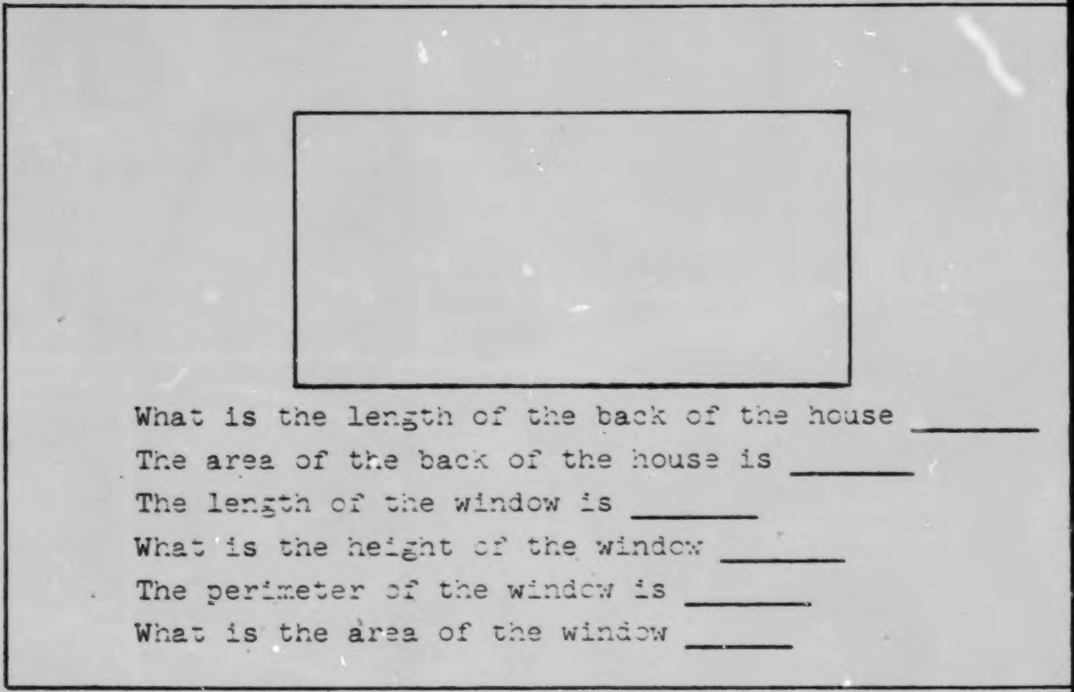
What is the area of the front of the house ______

What is the area of the large window ______

What is the perimeter of the small window ______

What is the width______ and height______ of the front door

FRONT OF HOUSE



What is the length of the back of the house ______

The area of the back of the house is ______

The length of the window is ______

What is the height of the window ______

The perimeter of the window is ______

What is the area of the window ______

BACK OF HOUSE

FLOOR PLAN

1. What is the length of the floor plan? ____________
2. What is the width of the floor plan? ____________
3. The perimeter is ________
4. The area of the floor is ______________

BEDROOM #1

1. What is the length of the bedroom? ______________
2. The width is ___________
3. The perimeter is ________
4. What is the area of bedroom #1? ___________

BEDROOM #2

1. The length is __________
2. What is the width of the bedroom? ______________
3. The perimeter is ________
4. The area is ___________

BATHROOM (Including Closet)

1. What is the width of the bathroom? ____________
2. The length of the bathroom is ______________
3. The perimeter is ________
4. What is the area of the bathroom? ____________
5. What is the perimeter of just the closet? ________

KITCHEN

1. The width is ____________
2. What is the length of the kitchen? ____________
3. The perimeter is ______
4. What is the area of the kitchen? ____________

UTILITY ROOM

1. The perimeter of the utility room is ____________
2. The area is ___________

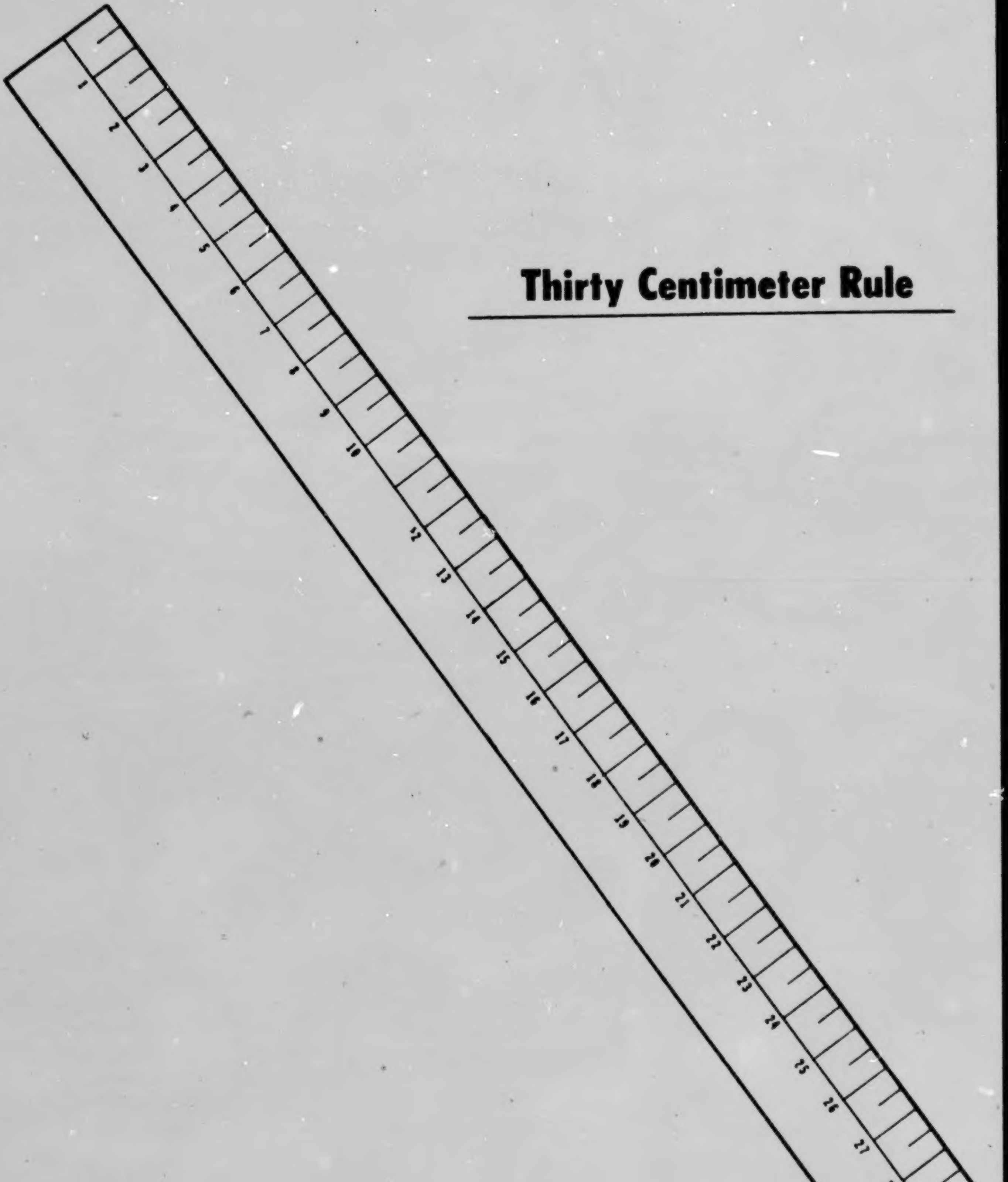
LIVING ROOM

1. The width of the living room is ______________
2. What is the length?

   ____
3. The perimeter is ________
4. What is the area?

   ____

Thirty Centimeter Rule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THE VALUE OF HOUSEWORK

Directions: Many hired housekeepers receive $4.00 an hour in wages for doing household chores. Read the list of chores below and write how many hours your family spends doing each. Then multiply the number of hours times $4.00 for each chore. This is the monetary value of work. Complete the exercises and discuss your answers.

Household Chores	Hours Spent on Task Each Week	Monetary Value (Hrs. x $4.00)
1. Cleaning the home		
2. Shopping for food and other items		
3. Preparing meals		
4. Setting and clearing the table		
5. Washing dishes		
6. Making beds		
7. Doing laundry		
8. Ironing the laundry		
9. Mending clothing		
10. Putting out the garbage		
11. Cleaning the oven and stove		
12. Transporting children to school and other places		
13. Running family errands		
14. Dressing and caring for younger children		
15. Canning fruits and vegetables		
	Total Hrs. ______	Total $$ ____

AIRPLANE TEST FLIGHT (AERONAUTICAL ENGINEER)

Overall Goal: To apply scientific experimentation techniques in an industrial application setting. To strengthen math skills through processes of charting and averaging. To experiment with aeronautical dynamics.

Specific Learning Objective: Provided with a model glider and test flight instructions, the student will apply scientific experimentation techniques to determine the best wing angle for maximum length of glider flight.

Supplies and Materials: One Testor's model airplane #5102, or a similar glider model airplane; a penny; a protractor; masking tape; a tape measure; chalk; attached information and worksheet; pencil and paper.

Notes to the Teacher: This experience provides a good application setting for scientific experimentation. Students should also be encouraged to try each wing position several times and determine an average flight distance. In nice weather the experiment can be repeated out of doors and determine the influence of wind and weather upon flight patterns.

Instructions for the Student: Today you are going to pretend to be an aeronautical engineer and test flight a glider you have constructed. First read the attached materials and instructions very carefully. Then assemble your glider according to the directions on the package. Now you are ready to begin your test flights. Draw a launching point on the floor with the chalk and be sure to start each test flight with your feet on this line. Fly your glider three times with the wings straight, and record the distance of each flight on the attached sheet using the tape measure to determine the actual flight distance. To compute the average distance, add the three numbers together and divide this sum by three. Then change the angles as shown on the attached diagram, record the angle you are using by measuring it with the protractor, and repeat the process. After you have completed several series of tests using different angles, compile a report for the president of the company summarizing the results of your tests.

aeronautical engineer

exploration 1-2

When you walked into the plant early this morning, Roger, the guard, gave you a big smile. Through force of habit, he cast a quick glance over you and the badge you wear on your pocket. Roger knows that as an aeronautical engineer you have a high security clearance or you wouldn't even be working at the Arnold Aircraft Company.

Much of the work Arnold Aircraft handles is done under contract with the government, and some of it is considered top secret. The project you are working on now —the design of a weather-research missile—is not a military one and therefore not secret. That is fine with you.

Knowledge about the weather is especially important to people who design aircraft. Therefore, you are always glad to work on a project like the weather-research missile. It will carry a *payload*, or a cargo, of instruments high into the stratosphere, the thin air at the top of the atmosphere. These instruments will record information about what takes place in that region. They will also help us to learn more about the rays that come from the sun and other sources.

Aside from missiles for weather research and other purposes, Arnold Aircraft designs and manufactures propeller-driven aircraft, helicopters, and jets.

Very often you work only on portions of an aircraft, such as its fuselage, nose section, or wings. One of your engineering specialties is wing design. This means that you are an expert on the uses of *air-foil* shapes, the specific shapes of plane wings. You know the difference between basic foil structures and what each one does best. Every difference in the shape, length, and thickness of a wing means a difference in the way the wing behaves in the air and the way the plane behaves.

Another of your specialties is materials. You understand how the lightweight materials used in the various parts of aircraft react to the forces and stresses they meet in flight. For instance, you must know or find out how materials respond to heat, cold, and wind force.

You have been working on the nose section of the weather-research missile. Arnold Aircraft got the contract from the government after submitting a low-price bid for the job. The government gave Arnold Aircraft *specifications*, or detailed descriptions of what features the finished product was to have. Among other things, the government's specifications called for a nose section of hardened aluminum.

You were not sure that hardened aluminum would resist the high temperatures the weather-research missile might encounter in flight. Your doubts turned out to be right. You couldn't go ahead with your own ideas, though, because you don't work alone. You work as part of a team. So you went ahead with the aluminum.

Pablo, another engineer assigned to the weather-research missile project, specializes in structural design. He has been working on the shape of the missile in order to learn to join its parts together the best possible way.

Carmen, who works with motors, prepared the motor that will power the missile. Still other Arnold engineers worked on the navigational devices that will guide the missile. They also worked on the instruments that will measure rays from the sun and the radio that will transmit back to earth the data, or facts, the instruments obtain.

Marlene is an engineer whose specialty is testing and simulations. *Simulations* are test-runs under conditions created to be similar to those found in the open air. Marlene worked closely with the rest of the team to develop a prototype through tests of scale models. A *prototype* is a full-scale working model, built by hand for use in testing and as a pattern for production.

When you are not running tests, you and the other engineers spend most of your time at worktables in a large room. It was there that you worked and reworked the design of the weather-research missile, changing it according to the test results that had been recorded so carefully. Gradually, after many tests and many design changes you were ready to tell the engineering shop to build a prototype.

You arrived at the plant early this morning because the nose section of the prototype missile did not test well under actual atmospheric conditions.

"I'm not surprised," you told Marlene when you heard the news that the nose section had melted. "The model was all right in the wind tunnel because it was so small. The mass, or bulk, of the full-scale prototype is much greater, and that changes everything. Based on the data from the wind-tunnel tests, the computer told us that this was the area most likely to fail."

"You sound relieved," said Marlene.

"Well, I suspected that a ceramic nose section would do a better job. Ceramic resists higher temperatures than aluminum. But we had to go with aluminum because that's what the specifications called for. I suppose someone made an error on the government end."

That had been two days ago. The deadline on the weather-missile contract is getting closer and closer. You have all been working overtime to solve the problem of the deficient nose section. Last night, you and Pablo came up with what you hope is a solution. You figured out what kind of ceramic to use and Pablo changed the shape of the nose section a little bit.

Today, you will have a meeting with the technical director and the other engineers assigned to the project. It will be up to you and Pablo to convince them that your ideas will work. Then the technical director will have to convince the government that the specifications must be changed.

The flaw that was discovered in the weather missile's nose section came at a busy time for you. You had already been assigned to a new project, the design of a high-efficiency glider that will seat two persons. The glider will be used in areas where thermals are very slight. A *thermal* is an upward-moving body of air that keeps gliders aloft.

The glider is part of a different government contract than the one for the weather missile. But again, there is a very tight deadline, and you must get to work on the project right away. You really do not mind the pressure. If you had not been assigned to a new project, you might have been laid off once the missile goes into production.

Until it is time for the meeting with the technical directors and other engineers, you decide you will do a little preliminary testing of wing designs for the new glider.

You already know the shape, thickness, and length the wings are to be. So, in this exploration, you will test for the best wing angle for the new glider.

NOTE: The materials and special testing structures used in the aeronautics industry are not available for classroom use. In this exploration, therefore, you will assemble a model glider from a kit. You will simulate the testing methods that might be used to find the best wing angle for the new glider.

For this exploration, you will need the following materials:

- Testors' model airplane #5102, or a similar glider model airplane.
- A key or a penny.
- A protractor.
- Masking tape.
- A tape measure.
- Chalk.
- Worksheet 1, which is the "Flight-Test Chart."
- A pencil and two pieces of paper.

The glider kit contains the four parts shown in Figure 2–1. There are two slots in the fuselage, or body, of the glider. Carefully press the plastic out of these slots if this hasn't already been done. Use a thin metal object such as a key or a penny.

First put the stabilizer, or tailpiece, into its slot. See Figure 2–2. Then insert the wing into the center slot and pull it through until it is centered. The metal strip should be on the rear edge of the wing piece, facing the tail of the glider. See Figure 2–2.

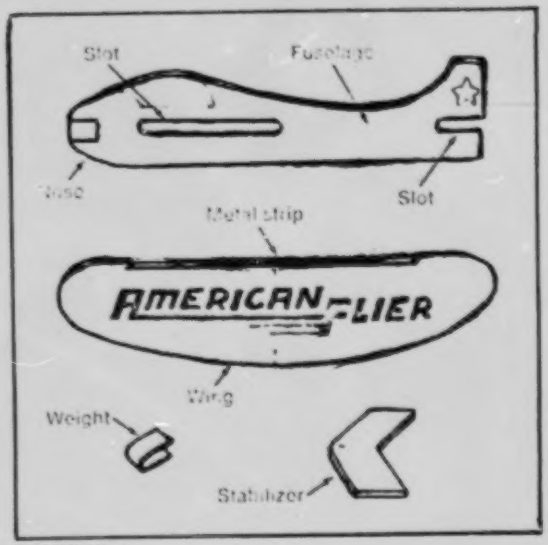

FIGURE 2-1

Now bend the weight around the nose of the fuselage, as shown in Figure 2–2.

If you have any difficulties assembling the glider, refer to the back of the package that contained the parts. It will provide additional instructions. If any of the parts break, repair them with masking tape.

When the glider is assembled, you are ready to begin testing for the best wing angle. Your test results will be more accurate if you fly the glider indoors. That way the glider will not be affected by changing wind currents. Try to find a large clear area to fly your glider.

Pick a launching point and mark the spot on the floor with chalk. Always stand on the launching point when you throw the glider. The tests themselves are simple to make. All you do is throw the glider with the wings bent upwards or downwards at various angles. Try to throw it with the same force each time. You must be sure to keep accurate records of all test results.

After each test flight, make a mark on the floor where the glider landed. Mark the flight number next to it and record the

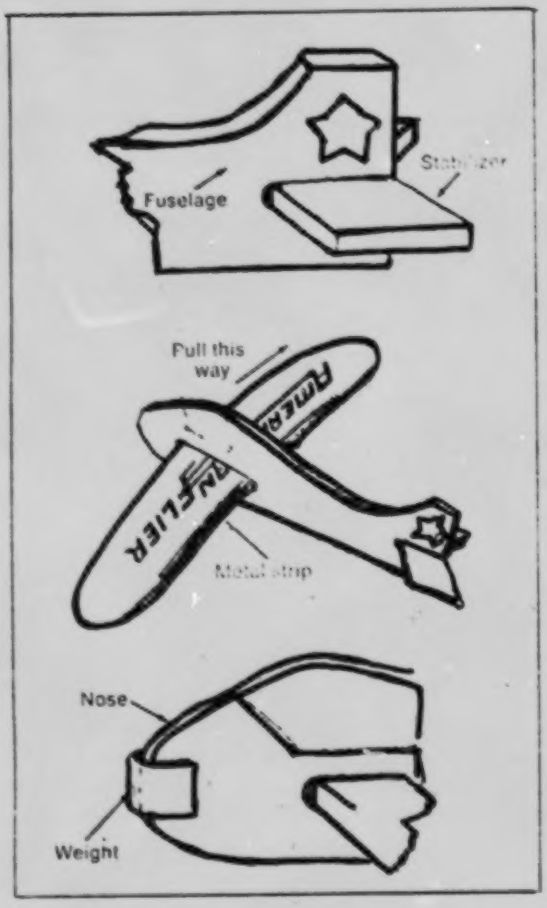
Fuselage
Stabilizer
Pull this way
AIMER
AN FLIER
Metal strip
Nose
Weight

FIGURE 2-2

flight number in the first column of Worksheet 1, which you have obtained from the book of pads. Worksheet 1 is also shown in Figure 2–3.

FLIGHT-TEST CHART		
	TEST PATTERN	
FLIGHT NUMBER	CHANGES MADE TO GLIDER	RESULTS

FIGURE 2-3

Now measure the distance between the launching point and the mark where the glider landed. That measurement is the distance the glider traveled on this flight. Write the distance down in the "Results" column of Worksheet 1, opposite the flight number.

Finally, after each flight, you must measure the wing angle you just tested. To measure the wing angle, first draw a straight line on a piece of paper. Then carefully pull the glider's wing out of its slot without changing its angle. Lay the wing on its edge on the piece of paper with the center touching the straight line. See Figure 2–4.

With your pencil, draw a line along the entire wing, as shown in Figure 2–4. Put the wing aside. Use your protractor to measure the wing angle shown by the line you drew along the wing. See Figure 2–5. Then bend the wings to a different angle for the next test flight. Carefully reinsert the wing into the center slot of the fuselage.

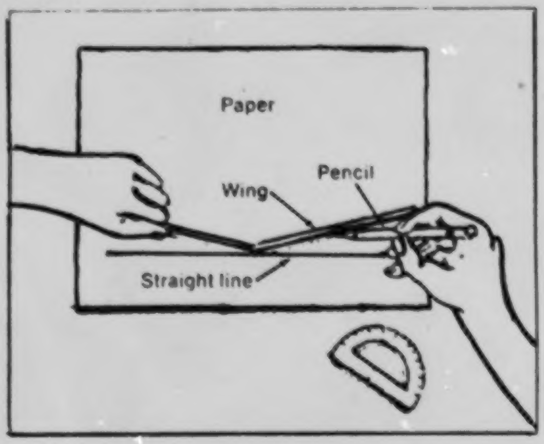
Paper
Wing
Pencil
Straight line

FIGURE 2-4

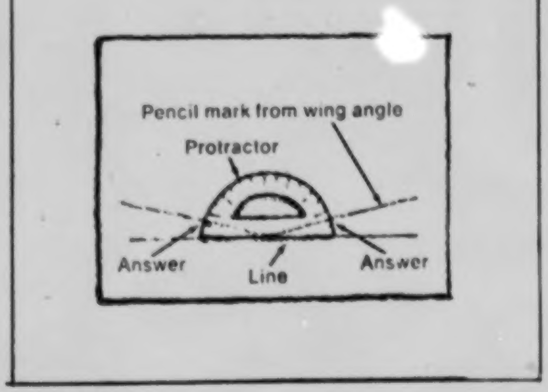
Pencil mark from wing angle
Protractor
Answer
Line
Answer

FIGURE 2-5

Make as many test flights as you have time for. Remember to measure the angle of the wings after each flight. And be sure to write the flight number next to the chalk mark that shows where the glider landed.

When you have finished testing the glider, look at Worksheet 1 to see which wing angle worked best. The glider's longest flight will be the result of the most successful wing angle. (The flight number written next to the furthest landing point should agree with the flight number opposite the longest distance measurement recorded on Worksheet 1.)

On a separate piece of paper, make a brief report explaining the results of your testing. If you have any ideas about why the most successful wing angle worked best, include those in your report.

The task you have just finished involved the testing of a small model aircraft to find out how a full-size aircraft will act. You had to keep very accurate records of the test results. If you were working at Arnold Aircraft, you would now begin to rework your designs. You would base your changes on the findings of your tests.

A great number of tests of many other scale models would take place before a full-scale prototype glider was constructed and itself tested. You would help supervise the tests and keep accurate records of each step.

Aeronautical engineers must be careful not only with test results but with all other aspects of their work. An error on the part of an engineer can cause the death of a test pilot. Besides, aircraft are expensive and a company like Arnold Aircraft cannot afford to put into production a plane with serious flaws.

As an aeronautical engineer, you would have to know about all aspects of aircraft design, construction, and function. You would also have to know a great deal about the movement of air and weather conditions. You would have to understand the properties of materials and the forces and stresses that affect them. As any other type of engineer, you would have to be good at math, because you would have to do a lot of calculating and figuring.

You should start your preparation for a career as an aeronautical engineer in high school. Most colleges require completion of the following high school subjects: 4 years of English; 3 years of mathematics (algebra, geometry, and trigonometry); 2 years of science (physics, chemistry, and/or biology); and 3 years of history, including social studies.

ACTIVITIES

1. Visit a local engineering firm or air force base and meet with an aeronautical engineer. Interview the engineer and find out more about the job. Be sure to ask about the engineer's current assignments, the working conditions on the job, and the salary. You might also want to ask about the educational requirements for the job and about opportunities for advancement and promotion.
2. Make further tests on your model glider. You can try moving the wings forward or backward on the fuselage. (To do this, you will have to make a new slot or two.) You might also want to run a series of tests to determine the best angle for the stabilizer.

exploration 1-2
aeronautical engineer
worksheet 1

________________________________name

________________________________date

<table>
<tr><th colspan="3">FLIGHT-TEST CHART</th></tr>
<tr><th colspan="3">TEST PATTERN</th></tr>
<tr><th>FLIGHT NUMBER</th><th>CHANGES MADE TO GLIDER</th><th>RESULTS</th></tr>
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Worksheet Booklet for Exploring Occupations in Engineering and Manufacturing

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JOB APPLICATION

Apply Early! Fill in Your Application Blank Today!

NAME ______________________________

ADDRESS ______________________________

AGE ______________________________

DATE OF BIRTH ______________________________

JOB WANTED ______________________________

THREE REFERENCES (People who know you and think you are a good worker.)

1. ____________________ 2. ____________________

3. ____________________

EXPERIENCE (Any jobs you have done before like this one.) ____________

____

EDUCATION (Situations or things studied that would make you a better qualified person for this position.)

____

____

HOBBIES (Things you like to do.) ____________________

____

WHAT DO YOU THINK ARE THE DUTIES OF THIS JOB? ____________

____

IF YOU GOT THIS JOB, COULD YOU THINK OF SOME EXTRA THINGS YOU COULD DO THAT WOULD MAKE YOU AN OUTSTANDING WORKER?

____

____

____

____

JOB APPLICATION
Page 2

WHY DO YOU THINK YOU WOULD BE GOOD AT THIS JOB? ____________________

____

____

____

IN THE SPACE BELOW WRITE A BIOGRAPHICAL SKETCH (Tell about your life, your family, brothers, sisters, pets, where you have lived, what you do in your spare time, some funny things that have happened to you and anything else you can think of.)

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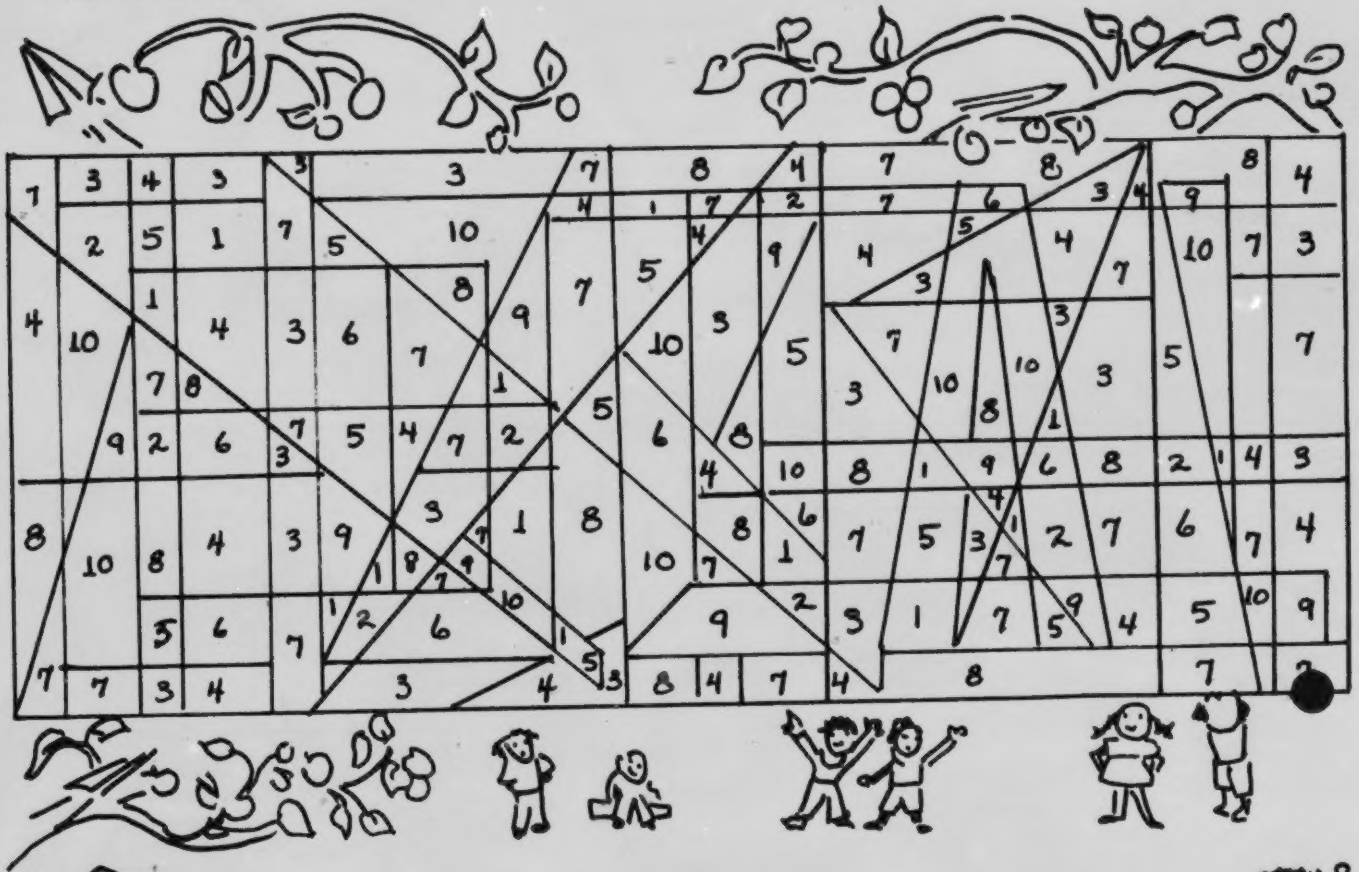
SHE CAN, HE CAN

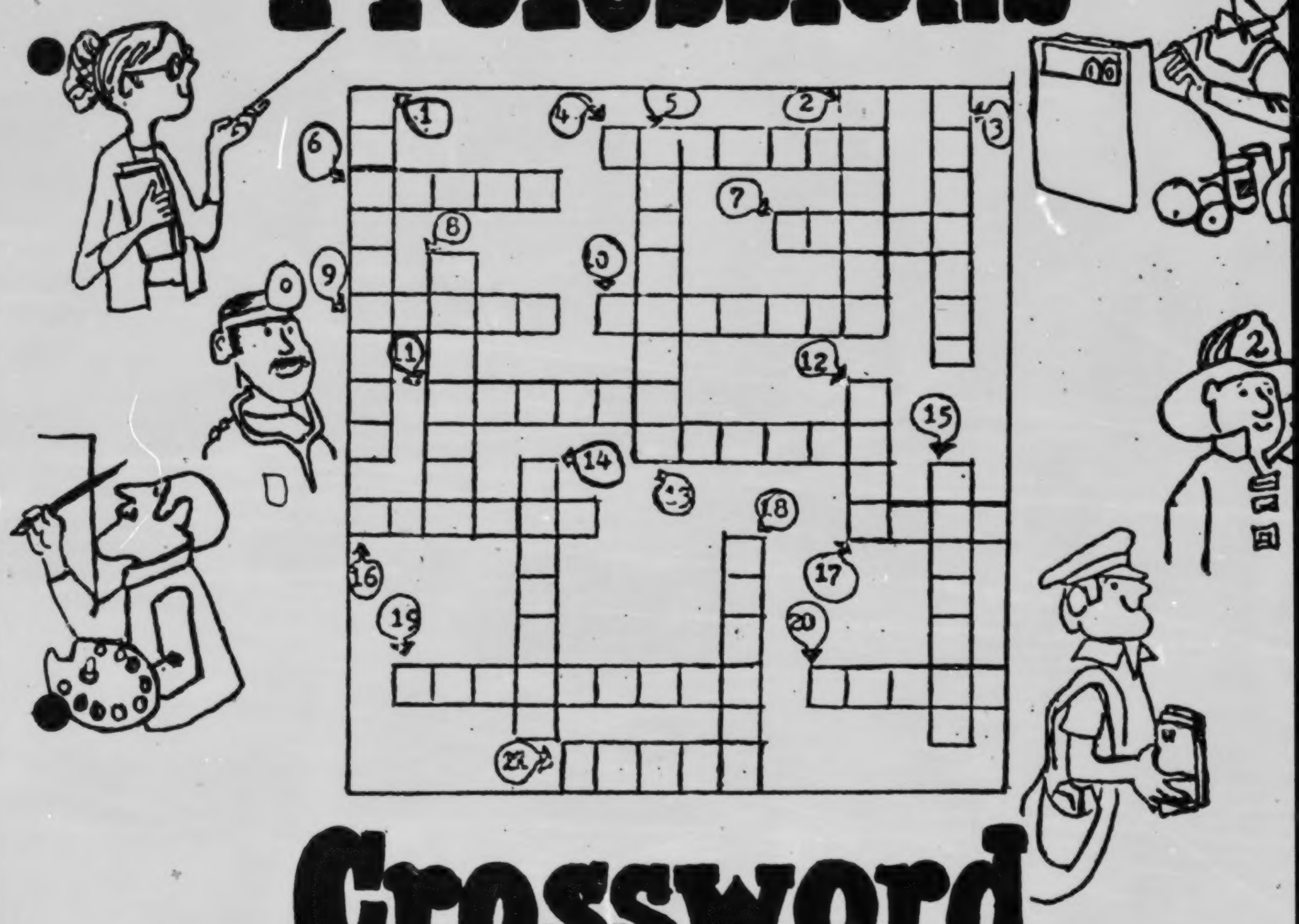
To solve the puzzle and find the hidden word, read the sentences below. The statement is true, color the numbered puzzle spaces as directed.



If a girl can be a doctor, color the #1 spaces.
If a boy can be a nurse, color the #2 spaces.
If girls are smarter boys, color the #3 spaces.
If boys are smarter than girls, color the #4 spaces.
If girls can be racing drivers, color # 5 spaces.
If boys can be cooks, color the #6 spaces.
If only girls can design dresses, color the $7 spaces.
If only boys can be pilots, color the #8 spaces.
If girls can be what they want to be, color the # 9 spaces.
If boys can be what they want to be, color the # 10 spaces.

FRINGE BENEFITS

Professions Crossword



DOWN:

1. Conducts an orchestra
2. Paints or draws
3. Fights fires
5. Owns an apartment and charges people rent
8. Delivers mail
12. Sells groceries and owns a grocery store
14. Cleans and fixes teeth
15. Heads a classroom - an instructor
18. Creates novels, plays, poems, and should be good with words

ACROSS:

4. Fixes sinks and toilets
6. Takes care of patients and helps doctors
7. Takes people on tours
9. Organizes and teaches a football, hockey, or other sport team
10. Sells flowers
11. Handles people's legal problems
13. Takes care of patients, and is often called a physician
16. Helps people with money problems
17. Main cook in a restaurant
19. The head of our country
20. Bakes bread and cookies
21. Acts in a play and performs on

ALTERNATIVES

Directions: Here are a number of sets of alternatives. Read them over and decide in each case whether you would prefer choice A or choice B. Check your preference in the space provided. There are no right or wrong answers; either alternative may be right for you. In class discussions on this activity sheet, be prepared to explain your choice.

Which would you choose?

A. A job that pays $250 a week but involves constant travel
B. A job of the same type paying only $125 a week but allowing you to stay home

A. To live in a small, quiet town but not be able to do the type of work you are interested in
B. To get into the field you like but have to move to a large city

A. To marry early and have a family
B. To work for a while before marriage

A. To get above average grades in high school but to have to give up many social activities in order to devote your time to study
B. To get just-passing grades and have enough time left after study to keep up a full schedule of social activities

A. To be an outstanding athlete
B. To be a student government leader

A. To defend your beliefs even though you know your action may make you less popular with some of your classmates
B. To keep silent about your beliefs in order to keep the approval of your classmates

A. To go to a concert
B. To go to a ball game

A. To spend your free time just having fun with your friends
B. To give your free time to community service projects

A. To spend free time in reading or quiet activities
B. To keep yourself busy by joining clubs and working on committees

A. To have a job and independence immediately after high school
B. To give time to further education or training in order to qualify for a better job

A. To make lots of money
B. To have prestige, be a leader, and have others look up to you

Summary Discussion: What are the important values for you in establishing priorities? Do you actually take action in your life consistent with your priorities? Give examples.

PERSONAL JOURNAL

Instructional Goal: After keeping a written journal of their everyday feelings, impressions, etc., the students will explain how five of their own personal characteristics influence their occupational choices.

Grade Level: 6-8

Subject Matter Area: Language Arts and Guidance

Time: Will vary depending upon teacher preference

Number of Students: Entire class (working individually)

Materials: Copies of the Suggested Journal Topics (one for each student)

Procedures

1. The teacher will explain the purpose and structure of the journal the students are to write. (See Teacher Exploration.)
2. The teacher will provide each student with a list of suggested journal topics. (See sample.)
3. Each student will keep his own journal. (The teacher should determine the length of time that the students will keep recording in their journals.)
4. It will be the task of the teacher to read each student's journal entries at least once a week. (Attempt to maintain a positive feedback to each student in response to their journal entries.)
5. Each student will identify five personal characteristics and relate in writing how these may influence their occupational choices.

Teacher Exploration

One way to help students explore themselves is to have them keep an ongoing daily journal of reactions to class experiences. Teacher and students should agree on and understand clearly the purpose of the journal and the structure of the journal before it is begun.

The purpose might be to give students an opportunity to keep a record for themselves of their reactions and insights regarding class experiences. The journal might be a means of sharing insights, feelings, questions and concerns with another student or a group of students; the journal might be a way by which teacher and student engage in a written dialogue. It might be a way by which teacher and students evaluate their needs and the manner in which the teacher or students help individuals to evaluate their progress. Hopefully, students and teacher will identify this

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journal as a growth and exploration experience and will not use it as "busy work" or as a means for assigning grades. For this reason, it is important that students and teacher agree on, and clearly understand its purpose and who will read it.

The structure will vary depending on the teacher and the class. Some possible ways of structuring include allowing students five minutes at the end of each class period for writing whatever they choose regarding the day's experiences; or they may be asked to record their immediate feelings at the close of each class period. Once a week, students may be asked to write something from the week that they feel good about. Students may be asked to respond to a specific question related to a particular class activity or may be given a general list of questions and asked to choose one or two that seem to relate to things that happen during the day, briefly describing the situation and reason for those feelings. Whatever structure is decided upon should be clearly understood and agreed upon by both teacher and students.

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Suggested Journal Topics

Each day write a paragraph or two reporting on your experiences related to this class. The questions below suggest the kinds of things you can write about. But, do not feel that you must limit your report to these questions if there is something else you would prefer to write about. You can probably write on one or two questions, and you can choose the ones that seem to relate to things that happen that day. Briefly describe the situation and reasons for your feelings.

1. How did your feelings about any person change as a result of this day's activities? Why?
2. How similar is your impression of youreself to the impression others have of you? Explain.
3. Were you surprised by any of the things people said about you? Explain.
4. What were some things you wanted to say today and did not say?
5. What did you do today which made you feel proud? Why?
6. What problems did you encounter?
7. What happened that made you feel uncomfortable or unhappy?
8. Whom did you see that imprssed you favorably? Why? - Unfavorably? Why?
9. What criticisms did you recieve and how did you respond to them?
10. What compliments were you given and what did they mean to you?
11. What did you do that seemed to be effective or ineffective in your relationship with others?
12. What did you do in your work that was enjoyable or satisfying?
13. What new task did you learn to perform?
14. Describe a difficult situation you encountered and how you handled it.
15. What questions did you ask your group or what questions would you like to have asked?
16. How do you think you might need to change to succeed in a preferred career field?

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17. What happened that made you feel you would (or would not) like (your choice) as a lifetime career?

18. Tell about the best thing that happened to you this week; something someone said or did, something you said or did, a feeling, an insight, a goal accomplished, etc.

This exercise taken in part from Pilot Training Project for Teachers of Distribution and Marketing, University of Minnesota, Summer, 1967.

HOW I FEEL ABOUT THE WORLD OF WORK

So often we, as educators, make assessments or draw conclusions about those things which directly affect those we teach. But how often do we ask for the students' opinions? How often do we actively engage students in the planning of programs, in listening attentively to their reactions, their feelings? The following are "feeling" or "reaction" surveys for career programs.

Directions: Read each question carefully, then circle yes or no: (You will not be graded on this - there are no "right" or "wrong" answers - just answers according to how you feel.)

YES NO 1. I like studying about the World of Work.

YES NO 2. I like to interview people about their work.

YES NO 3. Everyone's job is important.

YES NO 4. When we go on a field trip, I try to watch people at work.

YES NO 5. I would rather study as I did last year, instead of studying about the World of Work.

YES NO 6. My subjects in school seem to "fit in" with my studies about the World of Work.

YES NO 7. I am thinking more and more about the work I want to do when I grow up.

YES NO 8. I know more things about peoples' jobs now than I did when school started.

YES NO 9. I want to be prepared to get a good job.

YES NO 10. I feel important when I interview people.

YES NO 11. People who come to school for us to interview seem to like talking to us.

YES NO 12. People should be happy with their jobs.

YES NO 13. Earning a good amount of money is important when you are choosing a job.

YES NO 14. I would rather make a lot of money on a job than be happy on a job.

YES NO 15. I would rather be happy with a job than make a lot of money on a job.

HOW I FEEL ABOUT THE WORLD OF WORK (Continued)

YES NO 16. It is all right to change jobs if you want a different job.

YES NO 17. In school, we learn many things which we will use later on in a job.

YES NO 18. People must learn to get along with each other and work well together in order to be good workers on the job.

YES NO 19. I sometimes tell my parents about the World of Work program.

YES NO 20. I want to study the World of Work next year.

YES NO 21. There are many good jobs which you can have without needing a college education.

YES NO 22. A job in which your hands or clothes get soiled is as important as a job in which you stay clean.

Other questions which seek to gather feelings and thoughts from the affective domain might be:

1. When I talked to my parents about our World of Work activities they

____

____

2. When I talked to my friends about our World of Work activities they

____

____

3. In my opinion the difference between work and play is __________

____

4. Things that make me feel important are ____________________

____

5. Things that are important to my teacher are ________________

____

VALUE PREFERENCE EXERCISES

Discuss your preference in each of the following situations:

A. To defend your belief even though you know your action may make you less popular with your co-workers.

B. To keep silent about your beliefs in order to keep the approval of your co-workers.

A. To work in an office where the beginning pay is good, but the physical surroundings are unattractive and co-workers are ill-mannered.

B. To work in an office where the beginning pay is less, but the physical surroundings are good, and co-workers are well-mannered.

A. To marry early and have a family.

B. To work for a while before marriage.

(THINK UP SOME MORE VALUE PREFERENCE CHOICES)

GAME-ICE BREAKER
Work Values

1. Hand out - three blank cards to each person.

2. Write one work value on each card.

3. Divide into groups of four.

4. Discard two (one at a time) of your values - giving reasons why you would be willing to give up these values.

5. Have each person tell why they kept the one value remaining.

SELF-AWARENESS

Curriculum Area: Language Arts, Social Studies

Age Level: Primary and Intermediate

Purpose: To decide what is important in an individual's style of living and one's future life-style.

Activity: Tell the children to think about what their life is like now and how they would like it to be in the future. Have them number the following as to what is the most important to them (#1) to that which is least important (#12).

____ to earn a lot of money

____ to raise a happy, healthy family

____ to be happy because you do your job well

____ to be popular

____ to be in a job that helps others

____ to work as little as possible and still make money

____ to live simply and not be involved

____ to work with my hands

____ to work with my mind

____ to be a leader

____ to be creative

____ to be safe and secure in life

Can you think of any other categories that you might want to put on a list such as this if you were using this activity with your youngsters? Can you think of any substitute wording that would seem more appropriate for your grade level? Can you think of any other ways in which a list like this could be utilized? Jot down your ideas below to share with the rest of the group.

____

____

____

Reproduced with the permission of Project BICEP, Barnstable Public Schools.

FILL IN THE SENTENCES

I am ______________________________

I would like to ______________________________

Sometimes I think ______________________________

Once when I was little ______________________________

If only ______________________________

When I like someone, it's usually because ______________________________

When I dislike someone, it's usually because ______________________________

I show that I like others by ______________________________

I show that I dislike others by ______________________________

My best friend is ______________________________

My home is ______________________________

Fourth (Fifth or Sixth) Grade is ______________________________

Usually teachers are ______________________________

Education is important because ______________________________

When I get older, I ______________________________

It is easy to ______________________________

Sometimes I find it hard to ______________________________

If I could do exactly what I wanted to do now, I'd ______________________________

Something I think is great to do is ______________________________

Someone I think is great is ______________________________

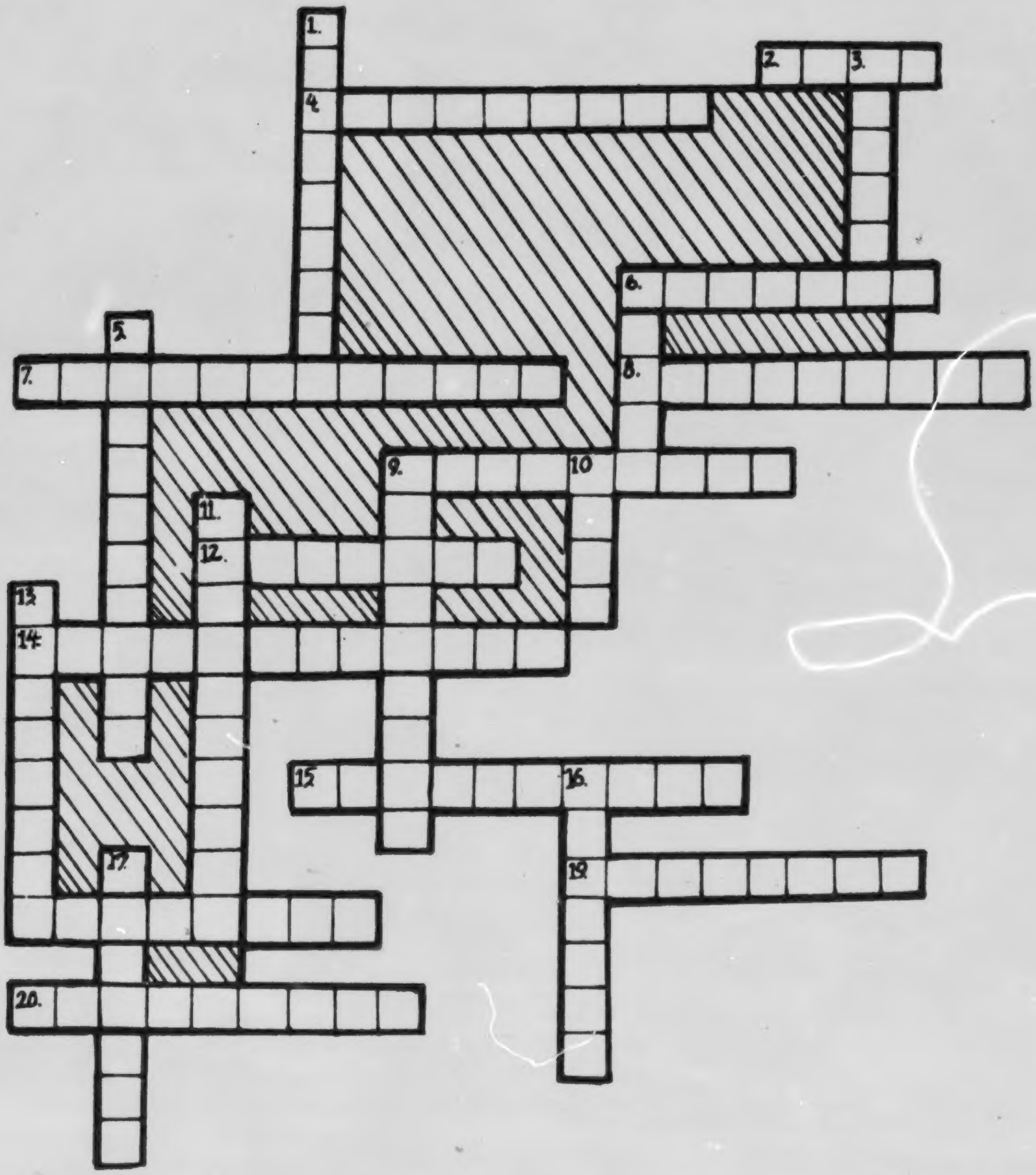
CROSSWORD QUESTIONS

ACROSS

2. A head cook.
4. He enforces laws for you and your community.
5. Occupations in which paint, brushes, and rollers are used to beautify your home inside or outside.
7. Animal doctor.
8. You'll find this person in the library.
9. Private eye.
12. One whose profession is playing games such as football, basketball, baseball, and hockey.
14. One who learns electrical wiring in an apprenticeship program.
15. Making women more beautiful is this person's main concern.
18. He can be found knocking on your door selling anything from perfume, to brushes, to insurance.
19. One who keeps records in an office or a court of law.
20. Shorthand, typing, filing, and bookkeeping are needed for this profession.

DOWN

1. One who repairs many different things.
3. Designing and planning are the major components of this person's occupation.
5. You must have a license to navigate an airplane to qualify for this job.
6. She'll greet you with a smile as you walk on the airplane.
9. A person who makes special diets for people to follow for various reasons.
10. One who prepares food.
11. This person will wait on you in your favorite restaurant.
13. An auto repairperson.
16. Person operating the cash register in your grocery store.
17. Mrs. Schwartz's profession.


1.
2.
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10
11.
12.
13.
14.
15.
16.
17.
19.
20.

CROSSWORD ANSWERS

ACROSS

2. Chef
4. Policeman
5. Painter
7. Veterinarian
8. Librarian
9. Detective
12. Athlete
14. Electrician
15. Beautician
18. Salesman
19. Clerk
20. Secretary

Down

1. Repairman
3. Engineer
5. Pilot
6. Stewardess
9. Dietician
10. Cook
11. Waitress
13. Mechanic
16. Cashier
17. Teacher

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VALUES RANKING

Arrange the following values in order of their importance to you as guiding principles in your career planning.

1. Security
2. Wealth (money)
3. Independence (being your own boss)
4. Helping others
5. Power (authority or influence over others)
6. Recognition (being noticed, feeling important)
7. Justice (fairness)
8. Knowledge
9. Beauty
10. Health
11. Happiness (contentment)
12. Inner harmony (freedom from inner conflict)
13. Equality (brotherhood, equal opportunity for all)
14. A sense of accomplishment (making a lasting contribution)
15. Mature love (sexual and spiritual intimacy).
16. Other values...

SCHOOL OCCUPATIONAL SURVEY

Suggested Instructional Goal

Given an opportunity to survey occupations associated with the operation of the school, student will be able to list two occupations for each of the major economic roles of consumer, producer, distributor.

Grade Level: 4-6

Subject Matter Area: Social Studies, adaptable to other areas

Time: Approximately three, 45-minute class periods

Number of Students: Total class

Materials: Survey lists (see example)

Procedures:

1. The students will complete an activity in defining the major economic roles of producer, distributor, and consumer.
2. The students, in groups of three, will survey the school, listing all occupations associated with the operation of the school.
3. The students will complete the survey sheet by listing two major tasks performed by the worker in the occupations listed on the survey sheet.
4. As a total group the students will categorize the occupations from their survey sheet in relation to the major economic roles of producer, consumer, distributor. (Teacher may wish to use a visual aid visible to all students.)
5. Each student will list two occupations for each of the major economic roles.

(SAMPLE)

OCCUPATIONS SURVEY

OCCUPATION (TITLE)	TASK PERFORMED	ECONOMIC ROLE
1		
2		
3		
4		
5		
6		

SCRAMBLED TRADES AND PROFESSIONS

The letters of the following words are scrambled out of their proper order. Can you recreate the original word out of the scramble? A score of 15 is fair; 17 is average; 20 is very good; 23 is excellent; and 25 is brilliant!

1. DOOTCA ____________________
2. RAWEIT ____________________
3. MOLDE ____________________
4. CTOAR ____________________
5. PROETR ____________________
6. GSINRE ____________________
7. LAYERWA ____________________
8. PCNERRATE ____________________
9. LIPOT ____________________
10. KEBKIRACLY ____________________
11. HEBRUCR ____________________
12. THEPOGAPROHR ____________________
13. DSEINTT ____________________
14. HEPSRATRGONE ____________________
15. CNICEHNA ____________________
16. EKPOBBRHOK ____________________
17. SMELASAN ____________________
18. HEFRUFCUA ____________________
19. CIGNIMMA ____________________
20. YECTARESR ____________________
21. MAMNOROT ____________________
22. BRAEDTREN ____________________
23. AISTANPCH ____________________
24. NURDNITPESTNER ____________________
25. CANATUCTON ____________________

SCRAMBLED PLACES OF EMPLOYMENT

1. RTOBIAROAY ____________________
2. ARATSENURT ____________________
3. RCUTO ____________________
4. OFTCRYA ____________________
5. SPHATOIL ____________________
6. IARLBRY ____________________
7. KNAB ____________________
8. ISDUOT ____________________
9. YRAEKB ____________________
10. MPCRHYAA ____________________
11. FOECFI ____________________
12. ANTINPYRIENT ____________________
13. HBOOSKPO ____________________
14. YGM ____________________
15. OHSCLO ____________________
16. SINORP ____________________
17. MUDOLRATA ____________________
18. LENASCER ____________________
19. TREATEH ____________________
20. SEUHO ____________________

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WHO'S WHAT ?

From the list below, underline the correct description of each occupation:

- Phlebotomist
  - Tree Surgeon
  - Nightcrawler Dealer
  - Blood-Letter
- Puffer
  - Cosmetologist
  - Cigarette Tester
  - Glass Blower
- Claquer
  - Spanish Dancer
  - Applauder
  - Horn Maker
- Agronomist
  - Forger
  - Farmer
  - Shoe Salesman
- Vintner
  - Animal Trainer
  - Wineseller
  - Junk Dealer
- Taxidermist
  - Cab Owner
  - Zoo Keeper
  - Animal Stuffer

- Herpetologist
  - Meat Inspector
  - Snake Specialist
  - Acne Specialist
- Dipper
  - Candy Coater
  - Pickpocket
  - Contortionist
- Osteopath
  - Pathfinder
  - Bone Specialist
  - Medium
- Cartographer
  - Spy
  - Map Maker
  - Wagon Designer
- Tumbler
  - Dryer Repairman
  - Glass Maker
  - Acrobat
- Prestidigitator
  - Magician
  - Stamp Collector
  - Actor

- Smith
  - Common Name
  - Craftsman
  - Distiller
- Tiler
  - Laborer
  - Lays Tile
  - Counterfeiter
- Courturier
  - Dressmaker
  - Masseuse
  - Barber
- Orthodontist
  - Dentist
  - Bird Trainer
  - Comedian
- Choreographer
  - Map Maker
  - Dancer-Composer
  - Ambassador
- Calligrapher
  - Phone Repairman
  - Copyist
  - Poet

Hostler

Horse Thief
Inn Keeper
Stableman

Chandler

Candle Dealer
Tailor
Production Worker

Podiatrist

Checks Pods
Foot Specialist
Coin Collector

Alienist

Foreign Legate
Psychiatrist
Divorce Lawyer

Ombudsman

Nursery Worker
Official Go-Between
Grape Picker

Endocrinologist

Tight End
Decoder
Medical Specialist

WORK ACTIVITY PREFERENCE CHECKLIST

Most people have an interest in or a preference for certain types of work activity. Below is a list of ten broad types of work activity. Read each activity and express how you would feel about working on a job which would involve you in that activity. Use the following ratings.

1. Would dislike the activity very much.
2. Would dislike the activity.
3. Neutral. Would neither like nor dislike the activity.
4. Would like the activity.
5. Would like the activity very much.

		Circle the rating describing your feelings about each activity				
1.	Activities dealing with things and objects.	1	2	3	4	5
2.	Activities involving business contact with people.	1	2	3	4	5
3.	Activities of a routine, definite, organized nature.	1	2	3	4	5
4.	Activities which involve direct personal contact, to help people or deal with them for other purposes.	1	2	3	4	5
5.	Activities which bring recognition or appreciation by others.	1	2	3	4	5
6.	Activities concerned with people and the communication of ideas.	1	2	3	4	5
7.	Activities of a scientific and and technical nature.	1	2	3	4	5
8.	Activities of an unusual, indefinite nature which require creative imagination.	1	2	3	4	5
9.	Activities which are non-social and involve the use of machines, processes, or methods.	1	2	3	4	5
10.	Activities which bring personal satisfaction from working on or producing things.	1	2	3	4	5

Now that you have marked your preferences, rank order them using the number in front of the work situations. Mark this number on the lines below to represent your first to last choice.

____ 1st Choice
____ 2nd
____ 3rd
____ 4th
____ 5th
____ 6th
____ 7th
____ 8th
____ 9th
____ Last Choice

ANALYSIS OF PERSONAL BEHAVIOR IN GROUPS

Directions

This form is designed to help you think about your behavior in groups (such as meetings and committees). First, read over the scales and on each one place a check indicating the place on the scale that describes you when you are at your best. Label this mark "B." Do the same for the point that describes you when you are at your worst. Mark this check "W."

After marking all the scales, pick out the 3 or 4 along which you would most like to change. On these scales draw an arrow above the line to indicate the desirable direction for changing your behavior.

1. Ability to listen to others in an understanding way.

0 1 2 3 4 5 6 7
Low High

2. Ability to influence others in the group.

0 1 2 3 4 5 6 7
Low High

3. Tendency to build on the ideas of other group members.

0 1 2 3 4 5 6 7
Low High

4. Likely to trust others

0 1 2 3 4 5 6 7
Low High

5. Willingness to discuss my feelings (emotions) in a group.

0 1 2 3 4 5 6 7
Low High

6. Willingness to be influenced by others.

0 1 2 3 4 5 6 7
Low High

7. Tendency to run the group.

0 1 2 3 4 5 6 7
Low High

8. Tendency to seek close personal relationships with others in a group.

0 1 2 3 4 5 6 7
Low High

9. My reaction to comments about my behavior in a group.

0 1 2 3 4 5 6 7
Low High

10. Awareness of the feelings of others.

0 1 2 3 4 5 6 7
Low High

11. Degree of understanding why I do what I do.

0 1 2 3 4 5 6 7
Low High

12. Reaction to conflict and problems in the group.

0 1 2 3 4 5 6 7
Low Tolerance High Tolerance

13. Reaction to expressions of affection and warmth in the group.

0 1 2 3 4 5 6 7
Low Tolerance High Tolerance

14. Reaction to opinions opposed to mine.

0 1 2 3 4 5 6 7
Low Tolerance High Tolerance

NASA

DECISION BY CONSENSUS

Instructions: This is an exercise in group decision making. Your group is to employ the method of Group Consensus in reaching its decision. This means that the prediction for each of the 15 survival items must be agreed upon by each group member before it becomes a part of the group decision. Consensus is difficult to reach. Therefore, not every ranking will meet with everyone's complete approval. Try, as a group, to make each ranking one with which all group members can at least partially agree. Here are some guides to use in reaching consensus.

1. Avoid arguing for your own individual judgements. Approach the task on the basis of logic.
2. Avoid changing your mind only in order to reach agreement and avoid conflict. Support only solutions with which you are able to agree somewhat, at least.
3. Avoid "conflict-reducing" techniques such as majority vote, averaging or trading in reaching decisions.
4. View differences of opinion as helpful rather than as a hinderance in decision-making.

On the "Group Summary Sheet" place the individual rankings made earlier by each group member. Take as much time as you need in reaching your group decision.

LOST ON MOON EXERCISE

DECISION FORM

Instructions: You are in a space crew originally scheduled to rendezvous with a mother ship on the lighted surface of the moon. Due to mechanical difficulties, however, your ship was forced to land at a spot some 200 miles from the rendezvous point. During re-entry and landing, much of the equipment aboard was damaged and, since survival depends on reaching the mother ship, the most critical items available must be chosen for the 200 mile trip. Below are listed the 15 items left intact and undamaged after landing. Your task is to rank order them in terms of their importance in allowing your crew to reach the rendezvous point. Place the number 1 by the most important, and so on through number 15 the least important.

_____ Box of matches

_____ Food concentrate

_____ 50 feet of nylon rope

_____ Parachute silk

_____ Portable heating unit

_____ Two .45 calibre pistols

_____ One case dehydrated Pet milk

_____ Two 100 lb. tanks of oxygen

_____ Stellar map (of moon's constellation)

_____ Life raft

_____ Magnetic compass

_____ 5 gallons of water

_____ Signal flares

_____ First aid kit containing injection needles

_____ Solar-powered FM receiver-transmitter

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SELF–DESCRIPTION INVENTORY

DIRECTIONS FOR ACTIVITY A: Answer the statements below by placing an X in the box that best tells about you. If the atatement does not tell about you at all, check Box 1. If the statement is a good description of you, check Box 7. The boxes numbered 2 through 6 let you tell where you fit between the high and low points.

DIRECTIONS FOR ACTIVITY B: Read again each answer you made in Activity A; then, see if you are pleased with your answers. If you think an answer is right, put a plus (+) sign for that answer in the box in the last column. If you are not pleased with your answer, if you honestly wish you could have given another answer, put a (--) sign in the box.

Activity A								**Activity B**
	Fits Poorly 1	2	3	4	5	6	**Fits Well** 7	**+ or −**
1. I know how to study well enough to learn on my own.	☐	☐	☐	☐	☐	☐	☐	☐
2. I can control those things that lead to success at work.	☐	☐	☐	☐	☐	☐	☐	☐
3. I can control the way I am.	☐	☐	☐	☐	☐	☐	☐	☐
4. I can learn to concentrate better.	☐	☐	☐	☐	☐	☐	☐	☐
5. I have a good attitude about learning.	☐	☐	☐	☐	☐	☐	☐	☐
6. I try to learn all the time.	☐	☐	☐	☐	☐	☐	☐	☐
7. I am satisfied with "just getting by."	☐	☐	☐	☐	☐	☐	☐	☐
8. I believe that my training will affect my pay.	☐	☐	☐	☐	☐	☐	☐	☐
9. I live in a world where I can make it to the top.	☐	☐	☐	☐	☐	☐	☐	☐
10. I base my decisions on facts, faith, and commitment.	☐	☐	☐	☐	☐	☐	☐	☐
11. It is not my fault for who I am or who I become.	☐	☐	☐	☐	☐	☐	☐	☐
12. I always say, "I can."	☐	☐	☐	☐	☐	☐	☐	☐
13. I work at only those things that I like.	☐	☐	☐	☐	☐	☐	☐	☐
14. I try to find out about different things.	☐	☐	☐	☐	☐	☐	☐	☐
15. I know where I am going in life.	☐	☐	☐	☐	☐	☐	☐	☐
16. I like myself.	☐	☐	☐	☐	☐	☐	☐	☐
17. I am a person who plans before doing.	☐	☐	☐	☐	☐	☐	☐	☐
18. I know what my real goals are.	☐	☐	☐	☐	☐	☐	☐	☐
19. I ask questions when I am not sure of something.	☐	☐	☐	☐	☐	☐	☐	☐
20. I have personal barriers that keep me from becoming a success.	☐	☐	☐	☐	☐	☐	☐	☐
21. I often find it hard to make decisions.	☐	☐	☐	☐	☐	☐	☐	☐
22. I look at all the choices before making a decision.	☐	☐	☐	☐	☐	☐	☐	☐
23. I set realistic dates to reach my goals.	☐	☐	☐	☐	☐	☐	☐	☐
24. I often day dream about reaching my goals.	☐	☐	☐	☐	☐	☐	☐	☐
25. I often make decisions before thinking them out.	☐	☐	☐	☐	☐	☐	☐	☐
26. I can tell the difference between good actions and bad actions.	☐	☐	☐	☐	☐	☐	☐	☐
27. I usually go along with the crowd.	☐	☐	☐	☐	☐	☐	☐	☐
	1	2	3	4	5	6	7	
	Fits Poorly						**Fits Well**	

CHAPTER VI

ROLE-PLAYING: AN EXAMPLE OF AN INSTRUCTIONAL STRATEGY

This session investigates role-playing techniques for the infusion of career education into subject matter areas. The purpose of this session is to introduce role-playing to the students through various techniques, and analyze its uses, its adaptability, and its strengths as a vehicle for teaching career awareness.

In each one of the sessions, whether it be high-structure or low-structure, the participants in the program will be asked to conduct at least five role-playing activities. It is important in both cases to review the process of role-playing, identify the steps in role-playing, and discuss the educational value of role-playing before the class enters into the actual activities. The information needed to conduct this pre-activity discussion is included in the handouts and resource materials.

A role-playing handout sheet is provided as a reference guide. This should be read very carefully prior to the session. Although it is not lengthy, it is rather comprehensive. It emphasizes the three factors of: (a) use of role-playing activities; (b) the steps involved in role-playing; and (c) the educational value of role-playing.

The session itself is divided into three stages. Stage one involves a familiarization with role-playing. This includes both a general discussion, and a review of the handouts. Following the pattern established, the high-structure design calls for a whole class, teacher controlled presentation and general discussion. A low-structure approach would use small groups to review and discuss the handouts, followed by a teacher-coordinated synthesizing process with the entire class. Stage two of this session would be a participatory experience in which the students engage in a number of career awareness role-playing activities.

The essential difference between the high-structure and low-structure approach for stage two - role playing itself - is that in the high-structure approach each role-playing activity is done separately in front of the entire class. The instructor will select the participants, conduct or guide the role-playing activity, and lead a discussion of each role play. In the low-structure approach, the class will again be broken into small groups. Each group will have all of the role-playing activities at its disposal and each will be asked to work independently to enact the activities, list and discuss the results, and at a later time report out the results of these activities to the entire class.

Stage three is the final phase of this session in which the students design and write a new career awareness role playing activity related to a specific career education concept or element. These will be designed and written individually in the high-structure mode, and in the same small groups using the low-structure approach. In each instance, the results should be shared with the entire class.

The bulk of time for this session will be spent in the middle step, as the participants engage in actual role-playing activities. It is important to monitor this time carefully. Participants may tend to stay with one role-play too long. Remember, the role-play itself rarely exceeds 5-10 minutes. The real value is in the pre-enactment and post-enactment discussions.

One more general note of caution. Role-playing is a commonly used classroom activity. It is rarely, however, used properly. A careful examination of the handouts is essential for this session to employ accurate procedures. If used properly, role-playing is a very effective social, values-oriented process for career awareness.

SESSION SEVEN
ROLE PLAYING TECHNIQUES IN CAREER EDUCATION

OBJECTIVES: After familiarization with the use of role playing activities, the steps in role playing, and the educational value of role playing, the students will:

A. Participate in role playing activities related to one or more of the eight career education elements.

B. Design and write a role playing activity related to a career education concept.

	HIGH-STRUCTURE GUIDELINES		LOW-STRUCTURE GUIDELINES
1.	Discuss with the entire class the use of role playing activities, steps in role playing, and the educational value of role playing. Utilize the role playing handouts as a reference sheet.	1.	Distribute the role playing handouts and ask the students to read them and look especially for parts which speak to the use of role playing activities, the educational value of role playing and the steps to role playing. Have the students form small groups to discuss the substance of the handouts.
2.	Select participants and guide the class through each of the role playing activities provided in the handouts. Select new participants for each activity. Stop after each enactment to discuss the value of the activity, its career education orientation, its value for classroom adaptation, and use.	2.	Divide the class into different groups of 3 or 4. Distribute all the role playing activities to each group and ask them to act each of the activities out, and to list and discuss each of the activities, their appropriate use, and their intended content value relative to career education.
3.	Ask each student to work alone to design and write a career education related role playing activity.	3.	In groups of 2 or 3, the students design and write a career education related role playing activity.
4.	Students report their results to the entire group.	4.	Groups report their results to the entire class.

RESOURCES:
1. Handout(s) discussing role playing, its value, its use, and the steps in conducting role playing activities.
2. Handouts describing several role playing activities related to career education elements.

ROLE PLAYING TECHNIQUES IN CAREER EDUCATION

SESSION SEVEN - CONTENT OUTLINE

1. Role Playing:
   - a. The use of role playing.
   - b. The educational value of role playing.
   - c. The steps in conducting a role playing activity.
2. Guidelines in writing role playing activities.
3. Practice in writing role playing activities.

RESOURCE MATERIALS

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ROLE PLAYING ACTIVITIES*

Use of Role Playing

Role playing is the informal dramatization of a situation, problem, story, or scene as presented by a leader. The leader is usually the teacher, who sets a scene, selects students to participate in it, guides the discussion, and leads the evaluation upon conclusion of the enactment. Role playing is generally conducted as the spontaneous enactment of social situations in order to understand the feelings and motives of persons involved in the imagined situation. Individuals portray themselves or other people by acting out thoughts, feelings, and behavior.

Role playing is something like the dramatic play of young children. Often children engage in dramatic plays in which they imagine they are cowboys, astronauts, parents, etc. Role playing is closely akin to dramatic play in that the action and dialogue of the play are spontaneous and emphasis is placed on pretending and imagining. Role playing differs from children's dramatic play in that it is the teacher who initiates the ideas, sets the limits of the play, and guides the discussion toward particular objectives.

Role playing is a psychological and educationally sound technique to use in developmental guidance. The spontaneity of the technique encourages the openess and freedom conducive to a frank, honest exchange of ideas. Children have an opportunity to air their emotions without fear of personal censure. They are encouaraged to analyze and to understand the perceptions of others. They may come to understand their own behavior. Role playing provides an opportunity for transfer of learning from thought to action; such opportunities extend the experiences to both the cognitive and the affective domains of practical living. Through experiencing emphathy and opportunities to make choices, children discover that changes in their attitudes and behavior are facilitated. The dramatic presentations of alternatives permit an onlooker access to varied interpretations of participants; the role playing medium enables concepts to become richer and more meaningful. Learning through role playing has great potential because of the many possibilities for interpretation of roles by the players.

The leader who is skeptical of the educational value of role playing should consider the following potential benefits:

1. Role playing provides an opportunity for the child who lacks academic talent, but who can excel in imagination and spontaneity, to experience success.

2. "Spectator therapy" or vicarious learning can occur through audience observation and empathy.

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*This handout has been selected from the instructional manual of the multi-media educational kit: Developing Understanding of Self and Others (DUSO), developed by Don Dinkmeyer, Ph.D., Circle Pines, Minnesota: American Guidance Service, 1973. It is reproduced in this manual with the publisher's permission.

3. Role playing can promote the development of social skills and understanding through both direct participation and observation.

4. Enactment of the same situation several times can help a child to see alternative solutions to a problem, thereby promoting his problem-solving abilities.

Role playing can be a potent medium for social and emotional growth. The experiences a person has actively participated in or witnessed are not easily forgotten. Discussions of role playing enactments reinforce the integration of thoughts, feelings, and behavior. Role playing involves participation, observation, and discussion - all vital ingredients in the learning process.

The discussion leader does not take over, but rather encourages the children: to become observant of the behavior of self and others; to look for the purposes and causes of behavior; to anticipate the results of behaviors.

The Steps in Role Playing

After selection of an adequate enactment area, there are four parts to role playing activities: preparation, introduction, enactment, and discussion, possibly followed by reenactment or extension.

1. Preparation. After reading the directions for a particular role playing situation, the leader gathers the group together. Because each role playing activity is an extension of the underlying unit theme, the leader may want to briefly review the theme and some of the main ideas of the related story. Inquiry might relate, for example, to the personalities and motives of the story's characters.

2. Introduction.

    a. Overview. The leader states very briefly that the group is going to do some pretending. She should describe the problem in terms of specific examples, with vivid details which create emotional involvement.

    b. Pantomime. Because children are interested in themselves and most of them are eager to pretend and participate, they are usually unwilling to wait very long before receiving a turn at playing. Therefore, it is important to allow all of them to have a brief opportunity to participate in a warm-up exercise at the beginning of each role playing session. If space does not permit the whole group to move about at the same time, break the group into sections, preferably only two.

Because it is easily performed, pantomime is suggested as the main warm-up activity. To begin the pantomime the leader may give the following directions:

(1) "This is our pretending space." (Indicate play area.)

(2) "Find a standing-up place where you won't be too close to any other person."

(3) "Stand there quietly. Show me you are ready to listen and imagine. (Wait for quiet.) Good."

(4) "Imagine there are no other children around you."

(5) "Wait until I say 'Ready, begin.' Then you may start. Keep working until you hear me say 'Stop'."

(6) "Today we are going to imagine we are ______________" (see specific direction).

(7) "Do not say anything. By your actions alone, show me your ideas about ________________. See if you can really make me believe you are a ____________."

(8) "Ready, begin."

Observe the pantomimes and make encouraging remarks for creative responses, such as "Oh, I see someone who is ___________ (describe pantomime," or "There is some original thinking going on over there." After at least a minute, stop the action and seat the students.

The leader controls the length of a situation by reserving and using the right to halt the play at any point.

c. Transition. After briefly commenting about ideas communicated in the pantomimes, the leader presents the actual role playing situation to the group. The description should be as brief, simple, and direct as possible.

Because children are expected to speak in character without becoming silly, the leader will give them some serious practice by asking them to respond in the characters' voices to such questions as "Mary, what did the old man say and how did he sound when he got knocked down? Can you act as if you were the old man?"

Then the leader asks for volunteers to take various roles. The group may suggest names, but the actors must volunteer. From the volunteers, characters are selected. At first select individuals who indicate they have identified well or who have strong feelings about a character's behavior. A child is never forced to take a role. (Emotional security must be ensured.) It is advisable to begin with sociable children before choosing participants who are shy or who seem to have more problems than others do. In specific role assignments, check to determine how the child interprets the character. For example, ask "What kind of person is he? How does she feel?"

3. Enactment.

a. Actors. The leader helps the characters set the scene. For example: "Shall we imagine a door is here? Do you need some chairs?" (If the characters are going to sit down, they will need some chairs. Children cannot play a role while pretending to sit, without losing both their balance and their train of thought.)

The leader says, "Find your places and stand quietly." At that point, she/he might need to briefly review the characters and their purposes for the clarification of both players and observers. This review should be brief and designed to stimulate involvement. A lengthy review will bore the children.

Action is started by the words, "Ready, begin."

During the enactment, the leader says as little as possible. The leader must refrain from becoming a dominant character. Otherwise the children lose their opportunity to explore and express themselves freely.

Minimal side coaching might be necessary to assist in moving the action along. The leader might briefly prompt with such observations as, "It must be time for father to come home now," or "I wonder how that brother will react." Suggestions are always directed to the character in the role, not to the child personally. The leader avoids using real names, but rather directs all remarks to the characters.

When a scene seems to have developed to its fullest, the leader notifies the group, "Stop. Come and sit down."

b. Discussion and Reenactment. It is usually advisable to have the actors evaluate their own performance first. At the end of a scene, no matter how weak it was, the leader makes several specific positive remarks: for example, "I noticed the realistic way the father read his newspaper. Wasn't the dog believable? He really seemed excited."

To encourage group participation in the discussion, the leader asks insightful questions such as those listed at the end of the given role playing activity. If other relevant questions emerge as a result of spontaneous play, they should, of course, be pursued. Discussion is to focus primarily on how the characters were feeling and on the purposes and consequences of their actions. The leader whould attempt to guide the discussion so that the issues are related to experiences personally relevant to the children.

The younger the children, the briefer the analysis.

The leader makes a summary statement of points elicited from the group and quickly selects a new group for enactment. The leader emphasizes that she/he will be looking for new interpretations of the roles on each replay. The purpose of reenactment is to improve children's problem-solving abilities through the exploration of new insights and alternative solutions.

Encourage as many enactments as appropriate.

General Suggestions. For the initial playing, the leader tries to select children who seem enthusiastically responsive. They will set a standard for the plays that follow. Clarity in speech and pantomime should be praised.

If the characters seem to be getting off the track, the leader says calmly and firmly, "Keep your character." Even though the children may not exactly understand the direction, they will understand the firm but kind tone of voice.

Beginning role playing may bring about a variety of unexpected reactions in children. Two of the extremes in behavior are acting up and excessive shyness or refusal to participate.

Disruptive Players. The child who acts up can destroy the imaginary creations of other students. The first few times this behavior occurs, the leader stops the whole group and calmly, but firmly, re-explains the ground rules. They are:

1. Play in the play space.
2. Actions - no words (for pantomime).
3. Do not disturb the play of others (pay attention, no silliness, no showing off).

If the child continues to be disruptive, the leader quietly isolates his play or has him sit down. In private, discuss with the child the importance of understanding and following the rules. At a later point the disruptive student can be given the choice of joining the group if he believes he is ready. (It is important that the leader remain calm and quite pleasantly matter-of-fact in order to avoid a power struggle with the disruptive child.)

Reluctant Players. Unresponsiveness can be a problem. Some children may be extremely inhibited, or they may never have engaged in a dramatic play. In such cases the leader might need to demonstrate what is meant by pretending and pantomiming. Occasionally, as opportunities present themselves, the leader might take roles in enactments in order to demonstrate.

Do not appear overconcerned about the child who exhibits extremely shy behavior. Instead, recognize and encourage others in their efforts. As soon as the shy child makes any overt effort at enactment, encourage him by recognizing his attempt to become involved. However, exaggerated praise can drive a shy child back into seclusion, so take care not to overreact.

Noise. Excessive noise can become bothersome during role playing. If the leader has effectively stimulated children to want to work on a given problem, they will become excited, and often with excitement comes noise. Do not begin a pantomime or a scene until the children have become almost totally silent. The role players need a moment to reflect quietly on their task. Lack of concentration or silliness on the part of the players will produce insincere or unintelligible scenes.

Restlessness. Restlessness of the group is an indication that something has been going on too long. Perhaps the directions have taken too long or have been repeated too often; perhaps the scene or the discussion has continued too long. Leaders must be brief and to the point. Use short sentences. Stop an activity before boredom sets in.

Certainly children who have had experience with dramatic play and creative dramatics will find it less difficult to role play than inexperienced ones will. Do not expect perfection and depth in beginning lessons. Each successive role playing situation should show an increased ability of the group to play together effectively.

Once children have become acquainted with the fundamentals of role playing, the procedure can be used to project endings for stories which are open-ended or unfinished and in many other activities in the curriculum.

ROLE PLAYING AS A MODEL OF TEACHING*

Regardless of the particular type of social problem, student discussion will focus naturally on the aspects of the situation that seem important to them. The students may concentrate on the feelings that are being expressed, the attitudes and values of the role players as seen through their words and actions, the problem solution, or the consequences of behavior. It is possible for the teacher to emphasize any or all of these areas in the enactments and discussions. In-depth curriculum sequences can be based on or built around each of the following focuses:

Exploration of feelings.
Exploration of attitudes, values, and perceptions.
Development of problem-solving attitudes and skills.
Subject matter exploration.

We prefer to view these as alternative focuses around which clusters of educational objectives are developed. For example, the development of problem-solving attitudes and skills may include openness to solution, ability to identify the problem, ability to generate alternative solutions, acquisition of new behaviors, making of decisions, and other objectives. It is our experience that when teacher and student discussion tries to touch upon all possible areas, the yield from the learning experience is minimized. Consequently, we advocate selecting one major focus, or possibly two, for a single role playing session. An important function of the teacher, then, is to select and maintain the focus throughout the role playing activities.

The benefits of role playing depend on the quality of the enactment and especially on the analysis of it that follows. They depend also on the students' perception of the role play as similar to a real-life situation. A sincere involvement in the roles is essential if the experience is to be meaningful. Children do not necessarily engage effectively in role playing or role analysis the first time they try it. Many have to learn to engage in role playing in a sincere way so that the content generated can be analyzed seriously. Chesler and Fox suggest pantomimic exercises as a way of freeing inexperienced students. Role playing is not likely to be successful if the teacher simply suggests it to the students, tosses out a problem situation, persuades a few children to act it out, and then conducts a discussion about the enactment.

The Shaftels suggest that the role playing activity consist of nine steps:

1. Warm up the group.
2. Select participants.
3. Prepare observers.
4. Set the stage.
5. Enact.

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*This material adapted from Social Models of Teaching, by Bruce Joyce and Martha Weil, Prentice-Hall Publishing Company, Englewood Cliffs, New Jersey, 1976. It is reprinted here with the permission of the publisher.

6. Discuss and evaluate.
7. Reenact.
8. Discuss and evaluate.
9. Share experiences and generalize.

Each of these steps or phases has a specific purpose that contributes to the richness and focus of the learning activity. Together, they ensure that a line of thinking is pursued throughout the complex of activities, that students are prepared in their roles, that goals for the role play are identified, and that the discussion afterwards is not simply a collection of diffuse reactions, though these are important too. Figure 1 summarizes the phases and activities of the model, which are then discussed and illustrated in the remainder of this section.

Phases	Activity
1. Warm up the group.	Identify or introduce problem. Make problem explicit. Interpret problem story, explore issues. Explain role playing.
2. Select participants.	Analyze roles. Choose role players.
3. Set the stage.	Set line of action. Restate roles. Get inside problem situation.
4. Prepare the observers.	Decide what to look for. Assign observation tasks.
5. Enact.	Begin role play. Maintain role play. Break role play.
6. Discuss and evaluate.	Review action of role play (events, positions, realism). Discuss major focus. Develop next enactment.
7. Reenact.	Play revised roles, suggest next steps or behavioral alternatives.
8. Discuss and evaluate.	As in Phase Six.
9. Share experiences and generalize.	Relate problem situation to real experience and current problems. Explore general principles of behavior.

Figure 1. Phases and Activities in Role Playing.
(Based on Fannie and George Shaftel's Role Playing for Social Values, Englewood Cliffs: Prentice-Hall, Inc., 1967.)

TEACHING ANALYSIS GUIDE FOR THE ROLE PLAYING MODEL*

This Guide is designed to help you analyze the process of teaching as you practice the Role Playing Model. The analysis focuses on aspects of teaching that are important to the syntax of the model, the teacher's role, and specific teaching skills.

The Guide consists of a series of questions and phrases. As you observe a practice session (whether peer teaching or microteaching), analyze the teaching using the rating scale that appears opposite each question and statement. This scale uses the following items:

> Thoroughly. This item signifies that the teacher engaged in the behavior to the point where students were responding comfortably and fluently. Appropriateness varies from situation to situation. For example, if the students have been introduced to the concept of role playing in previous role plays and are fluent in its application, it need not be presented again.
>
> Partially. This item signifies that the teacher engaged in appropriate behavior, but not as thoroughly as possible. There is some doubt about whether the students are responding fully.
>
> Missing. The teacher did not engage in the behavior; there appears to be a loss in student response or probably will be one.
>
> Not Needed: The t4acher did not explicitly manifest the behavior, but there is no loss. Either the behavior was included in others or the students began to respond appropriately without being led to.

For each question or statement in the Guide, circle the term that best describes the teacher's behavior.

Phase One: Warm Up the Group

Problem Presentation

1.	Was the problem introduced and identified?	Thoroughly	Partially	Missing	Not Needed

Discussion of Problem

2.	Did the students speculate on or interpret the problem?	Thoroughly	Partially	Missing	Not Needed
3.	Did the students identify the general category of the problem situation - for example, peer pressure, or prejudice? (This could also take place in Phase Nine.)	Thoroughly	Partially	Missing	Not Needed

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4.	Were both sides of the problem discussed?	Thoroughly	Partially	Missing	Not Needed
5.	Did the teacher involve the students in setting goals or purposes in terms of the role play?	Thoroughly	Partially	Missing	Not Needed
6.	Were all the students involved?	Thoroughly	Partially	Missing	Not Needed

Knowledge of Role Playing

7.	Were the students aware of the function and procedures of role playing? If not, were these explained?	Thoroughly	Partially	Missing	Not Needed

Role Analysis

8.	Were the roles identified and described? (This item can also be done in Phases One or Three.)	Thoroughly	Partially	Missing	Not Needed
9.	Did the role analysis reflect the ideas of the initial discussion of the problem?	Thoroughly	Partially	Missing	Not Needed

Selection of Role Players

10.	Were the role players chosen?	Thoroughly	Partially	Missing	Not Needed

Phase Three: Setting the Stage

Line of Action

11.	Was the line of action decided upon before the role playing?	Thoroughly	Partially	Missing	Not Needed
12.	Did the line of action that was decided upon reflect the ideas in the initial discussion of the problem in Phase One?	Thoroughly	Partially	Missing	Not Needed
13.	Was the setting described?	Thoroughly	Partially	Missing	Not Needed

Phase Four: Preparing the Observers

14. Was there a discussion to prepare observers to:				
a. evaluate the realism of the role playing?	Thoroughly	Partially	Missing	Not Needed
b. analyze the consequences of the role playing behavior?	Thoroughly	Partially	Missing	Not Needed
c. define the feelings of the role players?	Thoroughly	Partially	Missing	Not Needed
15. Were specific observation tasks assigned?	Thoroughly	Partially	Missing	Not Needed

Phase Five: Enactment

Role Play

16. Did the role play take place?	Thoroughly	Partially	Missing	Not Needed

Teacher Role

17. Did the teacher break the role play at an appropriate time?	Thoroughly	Partially	Missing	Not Needed

Phase Six: Discussion

Focus

18. Was the enactment reviewed in terms of:				
a. the realism of the role play?	Thoroughly	Partially	Missing	Not Needed
b. a summary of the events and the consequences of different actions for the participants in the role play?	Thoroughly	Partially	Missing	Not Needed
c. a summary of the arguments that each role player presented?	Thoroughly	Partially	Missing	Not Needed
19. Did a discussion centering on the primary focus take place?	Thoroughly	Partially	Missing	Not Needed

20. During the discussion, did the teacher exhibit the following teacher skills?				
a. summarizing students' ideas	Thoroughly	Partially	Missing	Not Needed
b. paraphrasing or reflecting students' ideas	Thoroughly	Partially	Missing	Not Needed

Preparing for Reenactment

21. Did the students reflect on the previous role play and consider it in planning the reenactment?	Thoroughly	Partially	Missing	Not Needed
22. In the preparation of the reenactment, which of the following steps were carried out?				
a. role analysis	Thoroughly	Partially	Missing	Not Needed
b. selection of players	Thoroughly	Partially	Missing	Not Needed
c. development of the line of action	Thoroughly	Partially	Missing	Not Needed

Teacher Role

23. Was the teacher nonevaluative in her responses? That is, did she primarily reflect and summarize the students' ideas?	Thoroughly	Partially	Missing	Not Needed

Phase Seven: Reenactment

Role Play

24. Did a reenactment take place?	Thoroughly	Partially	Missing	Not Needed

Phase Eight: Discussion and Evaluation

Discussion

25. Did a discussion take place?	Thoroughly	Partially	Missing	Not Needed

Focus

26.	Was the enactment reviewed in terms of:				
a.	the realism of the role play?	Thoroughly	Partially	Missing	Not Needed
b.	a summary of the events and the consequences of actions for the participants in the role play?	Thoroughly	Partially	Missing	Not Needed
c.	a summary of the arguments that each role player presented?	Thoroughly	Partially	Missing	Not Needed
d.	a comparing and contrasting of the two enactments?	Thoroughly	Partially	Missing	Not Needed
27.	Did a discussion centering on the primary focus take place?	Thoroughly	Partially	Missing	Not Needed

Teacher Role

28.	Was the teacher nonevaluative in her responses?	Thoroughly	Partially	Missing	Not Needed

Phase Nine: Sharing and Generalizing

Discussion

29.	Were similar experiences explored?	Thoroughly	Partially	Missing	Not Needed
30.	Did the students reflect on how the role play applied to their own problems?	Thoroughly	Partially	Missing	Not Needed
31.	Were the students able to generalize the issues involved in the role play?	Thoroughly	Partially	Missing	Not Needed
32.	Were general principles of behavior explored?	Thoroughly	Partially	Missing	Not Needed

DEFINITIONS OF THE EIGHT ELEMENTS OF CAREER EDUCATION*

1. Self-Awareness: Achieving an increased awareness of "Self" by developing an understanding of interests and aptitudes.

2. Educational Awareness: Increasing interests and/or achievements in the educational program emphasizing the basic skill areas.

3. Career Awareness: Increasing interest and awareness of the occupations that compose the world of work.

4. Economic Awareness: Understanding the world of work and its impact on self and society.

5. Decision Making: Making successful decisions related to career and self satisfaction.

6. Beginning Competency: Demonstrating basic competencies upon exiting from high school.

7. Employability Skills: Demonstrating a "salable skill" upon exiting from high school.

8. Appreciations and Attitudes: Developing an understanding of the contribution of work, continual learning, the arts, and leisure qualities of life in achieving social responsibility and self-satisfaction.

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*This set of definitions and the subsequent role playing activities were derived from the SPICE career education project, Center for Career and Occupational Education, New York, New York.

ROLE PLAY I

SELF AWARENESS - CARD A

This situation calls for an interviewer and interviewee.

The role play should be designed to illustrate the concept of self-awareness. Please keep this in mind as the basis for your illustration.

Situation

You've decided to leave your teaching job in the New York City Schools for a different challenge. You're about to be interviewed by the director of a residential school for orphaned children. What can you tell him about yourself that will give him an honest picture of your abilities, attitudes, likes, dislikes?

SELF-AWARENESS - CARD B

This situation calls for an interviewer and interviewee.

The role play should be designed to illustrate the concept of self-awareness. Please keep this in mind as the basis for your illustration.

Situation

You're the director of a residential school for orphaned children. A teacher from the New York City School System has applied for a job, and you're about to interview her. Your main concern is finding out how she perceives herself as a teacher, and you want to begin the interview with the question "Why are you a teacher?" Devise questions that will best reveal her aptitudes, attitudes, likes and dislikes, etc.

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ROLE PLAY II

ATTITUDES AND APPRECIATIONS AND DECISION-MAKING - CARD A

This situation calls for a conversation between two friends who need to make a decision. This role play should be designed to illustrate the concept of attitudes and appreciations and decision-making. Please keep this in mind as the basis for your illustration.

Situation

It's 7:30 a.m. You have just received a phone call from your uncle telling you that he has two tickets to a matinee in the city that you and your friend have been yearning to see, but the play has been sold out for months. The tickets are for this afternoon's performance, and he must know in 10 minutes if you will go. This will mean you have to miss school, since traveling to the city, parking, etc., will take up most of the morning. If you turn down the tickets, you probably won't get to see the show, since it's leaving town in two weeks.

You had three commitments for today:

1. You were going to give your classes a full-period test that you have with you at home.
2. You have a parent conference scheduled for your prep-period.
3. Your spouse, who usually drives to work in the city, had to take the train, which he can't stand. You were to pick him up at the station. His office is five blocks from the theater. The play ends at 5:00.

You call your friend and tell her the news. How do you both decide what to do?

ATTITUDES AND APPRECIATIONS AND DECISION-MAKING - CARD B

This situation calls for a conversation between two friends who need to make a decision.

The role play should be designed to illustrate the concept of attitudes and appreciations and decision-making. Please keep this in mind as the basis for your illustration.

Situation

It's 7:30 a.m. Your friend calls to tell you the following news: She has just received a phone call from her uncle telling her that he has two tickets to a matinee in the city that you've both been yearning to see, but has been sold out for months. The tickets are for this afternoon's performance, and the uncle must know your decision in 10 minutes. You have three things to consider:

1. You were going to visit your brother in the hospital; he broke his leg yesterday, and you told him you'd be by to visit.

2. You will have to call the babysitter, which will cost $10.

3. You were planning to have a friend over for dinner at 8:00, and you haven't even begun to cook. Although you use prepared foods, you like to show off your culinary skills when company comes.

Your friend is on the phone. How do you both decide what to do?

ROLE PLAY III

CAREER AWARENESS - CARD A

This situation calls for a conversation between a teacher and a student.

This role play should be designed to illustrate the concept of career awareness. Please keep this in mind as the basis for your illustration.

Situation

You're a teacher who is developing individual career exploration units with each student. A student has just come in for a conference, having previously indicated to you an interest in the communications area. With the attached sheet, you help the student select one career for exploration. Together you will draw up criteria for exploration and design how the student will go about doing it.

CAREER AWARENESS - CARD B

This situation calls for a conversation between a teacher and a student.

This role play should be designed to illustrate the concept of career awareness. Please keep this in mind as the basis for your illustration.

Situation

Your teacher has given an assignment that each student must explore one career in a given cluster area. You've chosen the communications field, and it's time for your conference to plan with the teacher. With the teacher, you will select one career to explore. Together you will draw up criteria for exploration and design how you will go about doing it.

ROLE PLAY III - ATTACHMENT

The Communications Cluster

MAILMAN
NEWS CORRESPONDENT
NEWSWRITER
TV NEWSMAN
EDITOR
RADIO AND TV TECHNICIAN
CAMERAWOMAN
SPORTSCASTER
PRODUCER
WEATHERMAN
ENGINEER
PHOTOGRAPHER
FILM EDITOR
ASSISTANT TECHNICIAN
CUE CARD MAN
STAGE MANAGER
DISC JOCKEY
DIRECTOR

FILM LIBRARIAN
LIGHTING TECHNICIAN
PROP MAKER
COPYWRITER
PHOTOENGRAVER
TELEPHONE INSTALLER
RADIOTELEPHONE OPERATOR
TYPESETTER
ARTIST
TRAFFIC CONTROLLER
LINOTYPER
ACTOR
ACTRESS
ARTIST
MARKET RESEARCHER
NEWS DISTRIBUTOR
TIME BUYER

ROLE PLAY IV

EMPLOYABILITY SKILLS, EDUCATIONAL AWARENESS, BEGINNING COMPETENCIES -- CARD A

This situation calls for a conversation between a guidance counselor and a student.

The role play should be designed to illustrate the concept of employability skills, educational awareness, and beginning competencies. Please keep this in mind as the basis for your illustration.

Situation

You're a very determined and misunderstood student. You're in the 8th grade, you've been "learning" a lot of stuff, but nothing to help you in what you really want to do: drive for your uncle's trucking company.

It's showdown time with your guidance counselor. You tell her that you'll be taking the next two days off from school to drive to a small town in Pennsylvania with your uncle.

You're going to tell that counselor a thing or two! All the preparations you had to make for the trip: plotting the routes on all those maps, figuring the total miles traveled, the cost of oil, the depreciation on the truck, all so you and your uncle will know how much profit he's made.

You'll also tell her all those other things you had to take care of - your chores around the house, packing for the overnight, etc.

EMPLOYABILITY SKILLS, EDUCATIONAL AWARENESS, BEGINNING COMPETENCIES -- CARD B

This situation calls for a conversation between a guidance counselor and a student.

The role play should be designed to illustrate the concept of employability skill, educational awareness, and beginning competencies. Please keep this in mind as the basis for your illustration.

Situation

You have a conference scheduled with one of the students you counsel. All his teachers complain to you that they can't do anything with him, and that he only talks about cars and trucks.

You've called the student in because you know he's working for his uncle who owns a trucking company.

You've decided that maybe if you had some information from the student on what he does you could speak to each of his teachers, and suggest ways they can relate these interests and aptitudes to their classwork.

As you question the student, you decide to give suggestions as to where he might be able to apply some of these skills (e.g., if he does the billing for the company, what does he need from his math class to help him?)

By the end of the session, you have definite recommendations for how school can become useful to this student.

ROLE PLAY V

ECONOMIC AWARENESS CARD A

This situation calls for a conversation between two friends.

The role play should be designed to illustrate the concept of economic awareness. Please keep this in mind as the basis for your illustration.

Situation

You and your best friend have been planning to drive cross-country for your six-week summer vacation.

It's now the week before your departure date. This is your only vacation for this year, and you want it to be as carefree as possible. To you, that means comfort and as few chores as possible. You must plan a budget so you can buy your traveler's checks. You and your friend are getting together tonight to do that.

ECONOMIC AWARENESS - CARD B

This situation calls for a conversation between two friends.

The role play should be designed to illustrate the concept of economic awareness. Please keep this in mind as the basis for your illustration.

Situation

You and your best friend have been planning to drive cross-country for your six-week summer vacation. It's now the week before your departure date. Your boss has just called you in and told you he must fire you. Since you've been planning on this vacation anyway, this will be your last week. You and your friend are getting together tonight to plan your expenses. Naturally, you now have new restrictions on your budget that you hadn't anticipated.

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CHAPTER VII

DEVELOPING LEARNING ACTIVITY CENTERS FOR CAREER EDUCATION

This session is concerned with the development of learning activity centers, or learning interest centers, developed around the career education concept. Interest or activity centers represent yet another technique for the infusion of career education. The flexibility of this particular strategy, however, increases its applicability not only into the classroom, but throughout the school and out-of-school environment.

The resources for this session include a handout which defines and discusses the nature of learning activity centers. Using either the high or low-structure instructional design, this handout should be the first material that is used with the students. Its use should be for the development of the definition of learning centers, and the establishment of the advantages of a learning center approach in the classroom and throughout the school learning environment. As with the role playing session, the high-structure approach follows a teacher presentation of the handout followed by general class discussion. The low-structure treatment calls for small group review and discussion of the handout, followed by teacher-coordinated group synthesis of the results.

For the purposes of this session, the emphasis will be upon the utilization of activity centers for one of the following objectives: (a) to reinforce content skills already being taught in the classroom; (b) to develop one or more of the eight career education elements discussed earlier; (c) to provide a career exploration experience for students; or (d) to develop one or more transferable skills as discussed in Session Two.

Using the handout as an instructional guide, and following either the teacher-led or student-group centered approach most appropriate to the level of structure you have chosen, the process of the session should be as follows. First, introduce the concepts and definitions appropriate to interest centers. Then discuss the steps that should be followed in planning and developing an activity center. Finally, have the students (either individually or in groups, depending upon your structure) actually conduct the process of developing an activity learning center related to career education. This center should focus on one of the four major purposes of these centers for career education infusion, as mentioned on the previous page.

The major bulk of time for this session will be used in the actual development of the activity center. The definition and conceptualization should not exceed one-half hour. The remaining hour and a half should be divided approximately evenly between designing an interest center and analyzing and building upon these designs.

Past experience with this session has proven it to generate many popular ideas among the participants. One additional possibility, therefore, is to develop a form for recording these ideas and duplicating copies of all the center ideas for all the participants. The form would typically contain the title, major objective(s), supplies and materials needed, and a brief description of five-eight activities around a common theme. It has also been found that the pre-knowledge that this process is going to be utilized tends to make the participants a bit more careful in the full specification of activities for each learning center.

SESSION EIGHT
DEVELOPING CAREER EDUCATION INTEREST CENTERS

OBJECTIVE: After an investigation of the nature and advantages of activity-centered learning, and the steps required to develop an interest center, the students will plan and develop a career education interest center for use in the classroom, school, or other learning environment.

HIGH-STRUCTURE GUIDELINES	LOW-STRUCTURE GUIDELINES
1. Introduce to the students the concept of activity-centered learning experiences utilizing handout(s).	1. Form the class into 2 or 3 groups and distribute the Learning Interest Centers handout(s) to each student. Ask the students to review the material and work together in their groups to determine ways in which learning centers can be utilized to promote career education concepts.
2. Lead a class discussion to develop examples of the utilization of career education interest centers to (a) reinforce curriculum content skills; (b) develop one or more of the eight career education elements; (c) provide for career exploration experiences; (d) develop transferable skills as per Session Two.	2. Have the groups report their conclusions and list them. Add to this list the ideas that centers can be used to (a) reinforce content skills; (b) develop one or more of the eight career education elements; (c) provide for career exploration experiences; and (d) develop transferable skills, if these are not discussed and listed.
3. Distribute handouts and discuss steps to be followed in planning and developing an interest center.	3. In a large group discussion, develop and list some guidelines for teacher development and student use of activity centers. At the conclusion, distribute the Guidelines Sheet and review any items not previously mentioned.
4. Each student develops a career education interest center designed to perform one of the functions outlined in step #2 above.	4. Break the class into 4 groups. Assign each group a task from this list: Develop a career education activity center which: a. reinforces curriculum content skills b. develops one or more of the eight career education elements c. provides for career exploration experiences d. develops transferable skills

SESSION EIGHT (Continued)

HIGH-STRUCTURE GUIDELINES	LOW-STRUCTURE GUIDELINES
5. Teacher guides the class through a review of their work.	5. Each group reports the results of its work.

RESOURCES:
1. Overhead transparencies, handout(s) which define and discuss the nature of learning interest centers.
2. Handout listing the advantages of learning interest centers.
3. Handout of guidelines for the development and use of learning interest centers.
4. Handout of descriptive information about learning interest centers.
5. Handouts of sample activities that might be incorporated into various learning interest centers.

DEVELOPING CAREER EDUCATION INTEREST CENTERS

SESSION EIGHT-CONTENT OUTLINE

1. Learning Activity Center
    a. Definition
    b. Advantages

2. Four goals for the development of career education activity centers
    a. to reinforce academic content learning
    b. to develop the eight career education elements
    c. to develop transferable skills
    d. to provide career exploratory experiences

3. Guidelines for development and use of learning activity centers
    a. planning
    b. designing
    c. procedures for utilization

RESOURCE MATERIALS

DESIGNING
LEARNING
INTEREST
CENTERS

DEFINITION

A LEARNING EXPERIENCE REFERS TO THE INTERACTION BETWEEN THE LEARNER AND THE EXTERNAL CONDITIONS IN THE ENVIRONMENT TO WHICH HE CAN REACT.

……

LEARNING TAKES PLACE THROUGH THE ACTIVE BEHAVIOR

OF THE STUDENT ;

NOT WHAT THE TEACHER DOES.

……

THEREFORE..............

** THE STUDENT MUST BE AN ACTIVE PARTICIPANT.

** SOME FEATURES OF THE ENVIRONMENT SHOULD ATTRACT HIS ATTENTION.

** IT IS TO THESE THAT HE REACTS.

……

CONSEQUENTLY...............

DEVELOPING LEARNING INTEREST CENTERS IS THE PROCESS DETERMINING THE KINDS OF EXPERIENCES LIKELY TO PRODUCE GIVEN EDUCATIONAL OBJECTIVES

AND

ESTABLISHING SITUATIONS AND ENVIRONMENTS WHICH WILL EVOKE OR PROVIDE WITHIN THE STUDENTS THE KINDS OF LEARNING OUTCOMES DESIRED.

GENERAL PRINCIPLES IN DESIGNING LEARNING INTEREST CENTERS

1. THE STUDENT MUST PRACTICE THE KIND OF BEHAVIOR SPECIFIED IN THE OBJECTIVE FOR EACH ACTIVITY.

2. THE LEARNING EXPERIENCE MUST GIVE THE STUDENT AN OPPORTUNITY TO DEAL WITH THE KIND OF CONTENT IMPLIED IN THE OBJECTIVE.

3. THE LEARNING EXPERIENCE MUST BE SATISFYING TO THE STUDENT IN CONDUCTING THE BEHAVIOR SPECIFIED BY THE OBJECTIVE.

   (IF THE EXPERIENCE IS DISTASTEFUL THE DESIRED LEARNING IS NOT LIKELY TO TAKE PLACE.)

4. THE STUDENT REACTIONS (OUTCOMES) IN THE EXPERIENCE MUST BE WITHIN THE RANGE OF POSSIBILITY FOR THE STUDENTS.

5. THERE ARE MANY DIFFERENT TYPES OF EXPERIENCES THAT CAN BE USED TO ACHIEVE A GIVEN EDUCATIONAL OBJECTIVE.

6. ANY GIVEN LEARNING EXPERIENCE WILL USUALLY BRING ABOUT SEVERAL OUTCOMES.

   (THESE OUTCOMES WILL OCCUR IN ALL DOMAINS.
   THEY MAY BE PLANNED OR UNPLANNED.
   THEY MAY BE DESIRABLE OR UNDESIRABLE.)

CATEGORIZING LEARNING EXPERIENCES
FOR VARIOUS TYPES OF OBJECTIVES

1. LEARNING EXPERIENCE TO DEVELOP SKILL IN THINKING, (COGNITIVE)

    A. INDUCTIVE

        DRAW GENERALIZATIONS FROM ITEMS OF SPECIFIC DATA.

    B. DEDUCTIVE

        APPLY GENERALIZATIONS TO SPECIFIC AREAS.

    C. LOGICAL THINKING

        PROBLEM SOLVING:

            SENSE THE DIFFICULTY
            IDENTIFY THE PROBLEM SPECIFICALLY
            COLLECT DATA
            FORMULATE HYPOTHESES
            TEST THE HYPOTHESES
            DRAW CONCLUSIONS.

CATEGORIZING LEARNING EXPERIENCES FOR VARIOUS TYPES OF OBJECTIVES

2. LEARNING EXPERIENCES TO HELP STUDENTS ACQUIRE INFORMATION. (LOWER LEVEL COGNITIVE)

   A. THE INFORMATION MUST BE VIEWED AS FUNCTIONAL.

   B. CAVEAT --- WATCH FOR THESE DEFECTS;

      MEMORIZE BY ROTE RATHER THAN UNDERSTANDING
      RAPID RATE OF FORGETTING
      LACK OF ADEQUATE ORGANIZATION
      VAGUENESS AND INACCURACIES IN INFORMATION RECALLED
      LIMITED KNOWLEDGE OF SOURCES OF ACCURATE AND RECENT INFORMATION

   C. THE INFORMATION SHOULD BE PROVIDED IN A PROBLEM-SOLVING SITUATION.

   D. LIMIT TO ONLY THE IMPORTANT INFORMATION.

   E. SET UP SITUATIONS TO MAXIMIZE THE INTENSITY AND VARIETY OF THE IMPRESSIONS.

   F. USE THE INFORMATION FREQUENTLY AND IN VARIED CONTEXTS.

CATEGORIZING LEARNING EXPERIENCES

FOR VARIOUS TYPES OF OBJECTIVES

3. LEARNING EXPERIENCES TO HELP DEVELOP SOCIAL ATTITUDES (AFFECTIVE)

A. MEANS BY WHICH ATTITUDES ARE DEVELOPED:

    ASSIMILATION FROM THE ENVIRONMENT
    EMOTIONAL EFFECTS OF EXPERIENCES
    TRAUMATIC EXPERIENCES
    DIRECT INTELLECTUAL PROCESSES

B. MODIFY AND CONTROL THE SCHOOL AND COMMUNITY TO PROMOTE DESIRABLE ATTITUDES.

C. ELIMINATE ANTISOCIAL CONDITIONS IN THE SCHOOLS:

    CLIQUES
    SOCIAL CLASS LINES
    UNEQUAL TREATMENT BY TEACHERS OF STUDENTS

D. PROVIDE OPPORTUNITY FOR THE STUDENT TO BEHAVE IN THE WAY DESIRED AND GET SATISFACTION FROM IT.

E. PROVIDE OPPORTUNITIES TO ANALYZE SOCIAL SITUATIONS; GAIN FIRST — HAND EXPERIENCE WITH THE PROBLEM; REVIEW THEIR CONDUCT WITH THEIR PROFESSED BELIEF STATEMENTS.

CATEGORIZING LEARNING EXPERIENCES
FOR VARIOUS TYPES OF OBJECTIVES

4. LEARNING EXPERIENCES TO HELP DEVELOP INTERESTS

(AFFECTIVE)

A. ENABLE THE STUDENT TO DERIVE SATISFACTIONS FROM THE AREA OF EXPERIENCE IN WHICH THE INTEREST IS TO BE DEVELOPED.

B. LINK THE EXPERIENCE TO OTHER ALREADY SATISFYING EXPERIENCES.

ORGANIZING LEARNING EXPERIENCES

FOR EFFECTIVE INSTRUCTION

1. ONE MUST CONSIDER THE RELATIONSHIPS OF EXPERIENCES;
   OVER TIME (VERTICAL)
   FROM ONE AREA TO ANOTHER (HORIZONTAL)

2. CRITERIA FOR EFFECTIVE ORGANIZATION:

   A. CONTINUITY — THE VERTICAL REITERATION OF MAJOR CURRICULUM ELEMENTS

   B. SEQUENCE — INSURING THAT EACH VERTICAL REITERATION BUILDS UPON THE PRECEDING ONE IN BOTH BREADTH AND DEPTH

   C. INTEGRATION — THE HORIZONTAL RELATIONSHIP OF CURRICULUM EXPERIENCES

3. THE ESSENTIAL ELEMENTS, OR THREADS, OF THE CURRICULUM MUST BE ESTABLISHED.

4. ORGANIZING PRINCIPLES FOR THESE ELEMENTS MUST BE ESTABLISHED;
   A. CHRONOLOGICAL
   B. BREADTH OF APPLICATION
   C. INCREASING RANGE OF ACTIVITIES
   D' USE OF SPECIFICS TO BUILD BROADER PRINCIPLES AND UNIFIED WHOLES.

POSSIBLE ORGANIZING STRUCTURES

1. SPECIFIC SUBJECTS OR CONTENT AREAS
2. BROAD FIELDS OR THEMES
3. INTERDISCIPLINARY UNITS
4. CAREER EDUCATION ELEMENT(S)
5. TRANSFERABLE SKILLS

ADVANTAGES OF LEARNING INTEREST CENTERS

The learning interest center organizes and directs learning experiences for students through the utilization of selected space, materials, and activities designed to promote concept investigation on an individual or small group basis.

The utilization of learning interest centers allows the freedom of experiential learning while continuing to provide structure to the educational experience. Learning centers can be vehicles for moving students away from teacher-dominated learning environments toward student-centered education.

Some Advantages of the Learning Activity Center

1. It can be set up to be purely supplemental to existing curriculum content and room design.
2. It can be utilized by individual students or small groups independent of direct teacher supervision.
3. It allows for flexible time use.
4. It encourages student-initiated learning and self-evaluation.
5. The learning activity center facilitates flexible grouping of students based on interests, needs to interact, to cooperate with others, to work as a group member.
6. It provides an opportunity to introduce a wider range of materials, activities, and concepts into the learning environment.
7. The center can be established in the classroom, school-wide, or it can utilize an indoor/outdoor environment.

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GUIDELINES FOR THE DEVELOPMENT OF LEARNING INTEREST CENTERS AND FOR ESTABLISHING PROCEDURES FOR THEIR USE

1. The activity should be tied directly to one or more identifiable learning objectives.

2. The activity should be realistically designed to promote student initiation and self-direction.

3. The time required for effective utilization of the activity center should be flexible to allow for individual differences, but realistic in reference to total school day requirements.

4. Complexity of materials, equipment, reading levels, etc., should be considered relative to the abilities of students.

5. Students should be familiarized with the nature of the center, the intent of the center, its intended outcomes.

6. The interest center should include provision for differing information processing styles of learners (auditory, visual, motor, etc.).

7. A system of record keeping and student self-evaluation should be developed to be used by each student who uses the interest center.

8. Prior to the use of the learning interest center, a general explanation should be given to all intended users stressing:

    a. the purpose of the center

    b. the rules for use

    c. times of utilization

    d. basic routines including: selection of an activity, requirements regarding completion of activities, evaluation and record keeping, use and storage of equipment and materials.

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AN INTRODUCTION TO INDIVIDUALIZING INSTRUCTION*

Defining Individualized Learning

Personalized Instruction   Open Structure
Stylized Learning   Individualized Instruction
Humanized Education   Custom-Tailored Learning

Educators have coined many terms to describe what they mean by individualized learning. As it applies to the ideas and techniques presented in this book, individualized learning is the process of developing and retaining individuality by a classroom organization that provides for the effective and efficient learning experiences of each class member. Teaching and learning methods which focus on the total class are replaced by those which cater to individual differences. The need to label and categorize students in order to attend to their differences is lessened when each class member is attended to as an individual. Individualized learning comes about by varying the teaching and learning processes according to the interests, preferences, sociometrics, learning styles, and abilities and achievements of the students.

Adding the word individualized to learning does not mean that the teacher instructs every child individually, nor does it mean that group instruction is taboo. Grouping students for academic and social learning is a necessary component of an individualized classroom. Learning to interact, cooperate, and work as a group member is vital to the development of each child as an individual. Flexible groups which pull students together for a specific purpose aid the teacher in individualizing learning. Students should be members of various groups in order to have various experiences. The goal is to insure that no child becomes a permanent member of either a high, average, or low group.

The Change Process

The provision of a wide range of materials and activities to create an indoor/outdoor learning environment

The appropriateness of activities for different types of students

The opportunities for students to make decisions about what they learn

The teacher's interaction with students based on knowledge of the learning process

These are the benchmarks for assessing whether the teacher has made the transition to an individualized learning classroom.

Rearranging the furniture

Stuffing the room with things

Allowing students to move about the room

---

*From Change for Children, Kaplan, Kaplan, Madsen and Taylor, Pacific Palisades, CA, Goodyear Publishing Co., 1973.

These changes do not insure that a teacher is individualizing learning. What is visible in the classroom cannot be used as the measure for determining the effectiveness of the teaching/learning process. The teacher must focus attention on how students learn rather than on the content of the subject taught. The teacher must become a specialist in relationships: child to child, child to teacher, and child to learning. By interacting with students while promoting learning the teacher becomes the intermediary between the child and his environment. He must question, encourage, confer, and share. In this way, he will help make the environment useful for the student. Although the teacher's age, experience, and training are the basis for his authority in the classroom, he must exercise this authority to make learning available to students rather than to impose it on them.

Expectations and Evaluation

The number of changes which take place is not important. How fast things change in the process of individualizing learning is not important. What is important is that the teacher can answer these questions for himself:

Why am I doing this?
What do I hope to accomplish by this action?
How do I feel about what will be changed?

Success is determined by the teacher's ability to decide what needs to be changed and how these changes can be implemented. Introspection will determine the teacher's tolerance for student noise, mobility, and decision making in the assessment of how much change is acceptable. The teacher needs to develop a philosophical framework from which he can operate. An understanding of why changes are made substantiates these changes to the students, their parents, and the teacher's colleagues.

> "My class was choosing the same activities, turning in sloppy work, and using materials in the same way day after day. I had so much fear of manipulating children and of imposing my standards on them that I did nothing at all. I thought that when the time was right for them they would come to me, or they would discover what they needed for themselves. I just decided that I had a responsibility to step in and provide what they were asking for and what I felt was necessary at the time."

Individualizing learning does not imply that the teacher will abdicate the responsibility for making some decisions and directing some learning for the students. The teacher must decide when and where to function as a group member or group leader. Nor does it mean that the teacher will allow or accept anything students do. The goal of individualized learning is to create new standards for learning and behavior, not to abolish or disregard all standards. As the adult, facilitator, friend and teacher, he is still accountable for the behavior and performance of his students. Teacher accountability assumes a different dimension in the individualized classroom. Although not accountable for teaching all the students the same body of knowledge and skills, he is accountable for teaching each student how to direct his learning in relationship to his individual learning style and needs. In an individualized learning classroom, the major emphasis in evaluating students is on the processes of learning, not on the products of learning. This does not exclude the fact that in any type of learning environment, the students must learn basic and fundamental skills.

> "After two years of trial and error in moving into individualizing, I really thought I was ready for my third year. So I set up the environment, gave children the opportunity to make choices, made a variety of materials and working spaces available, and readied myself for that first day. After a month we were still in an unhappy state of chaos. I had ignored the most important factor: the children - a set of students who had had little experience with making choices and assuming real responsibility at school. They seemed to need support and training in how to make appropriate decisions and carry through on commitments. I realized that they needed to go through the same process that I had gone through: taking small steps and beginning with one area. We set up a decision-making center where all the activities were geared to teach and reinforce the process of decision making. We had lots of class meetings, some with imaginary situations and others with actual happenings in our class. We began some self-scheduling for one time block a day. Slowly, I gave and they accepted and asked for more responsibility."

Students cannot be expected to change just because the classroom environment and the teacher have changed. Not all students will be ready or able to adjust themselves to some or all aspects of an individualized learning classroom. The teacher must exercise judgment in order to determine which students manifest the maturity and skill to function successfully in this type of learning environment. The skills needed to work in an individualized classroom must be taught and practiced in the same way other subject area skills are taught and practiced.

> "This has been one hell of a week....You name it, it's happened. I'm going back to straight rows and three-group reading.
>
> This kind of feeling has come up more than once in this process of change I've been going through. At these times I've found it necessary to pull in the reins and set up tighter limits and standards. Somehow, just naturally, I find myself and the class moving out again into a more open situation. These periods of pulling in, at least for me, seem to provide a time for some stability and re-evaluation of what might have been going wrong. In other words a few setbacks don't mean you're a failure. They may help you eventually move further ahead."

The students and teacher try and evaluate, move ahead and step back. This is the process of making the transition to an individualized classroom. Opportunities for the class to share and discuss their frustrations, concerns, failures, and successes are important in making the change process understood and effective.

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The Learning Center Approach to Individualizing Learning

The development and use of learning centers is only one method for individualizing learning. They provide a beginning point but are not intended to be the only source of individualizing instruction. Learning centers become the vehicles for moving students away from teacher-dominated learning experiences and toward student-selected learning activities. Learning centers organize and direct learning experiences for students by allowing freedom while providing structure.

SAMPLE INTEREST CENTER

The "Shoe Box" Kit Interest Center

In constructing a "shoe box" interest center, the entire effort is directed toward providing the student with information, and "hands-on" experience concerning a single concept or knowledge about the world of work which supplements and enriches the formal curriculum.

To be most effective, the interest center should:

1. Be attractively packaged inside a shoe box or container of similar size that is sturdy, and easily transportable. Cover with contact paper - shoe box, fishing box, covered cake pan, dress box, etc.
2. Involve something that the student will do to gain information about one specific area which can be easily covered within the confines of the shoe box itself. (Not too broad.)
3. Contain simple, easy-to-follow directions glued to the inside of the cover.
4. Contain some free or inexpensive regalia or real materials for the students to work with. Include list (inventory) of items in box.
5. Provide for learning on the part of the student and for an activity to measure that learning (i.e., questions to answer, matching columns, etc.)

Checklist for Developing Shoe Box Projects

1. Select a career that can be related to the discipline you teach.
2. Select a single skill that is used by people in the career you have selected. Example: A waitress sets the table; a farmer plants seeds.
3. Examine the skill selected and decide how it can be presented to the grade level with which you are working.
4. Find a shoe box (or convenient container).
5. List the hardware needed. When possible use full size items rather than toys. Often a small size or sample item will be suitable...a small hammer, real plastic silverware, etc.
6. Collect all the items.
7. Develop directions for the learner. Make the project as self-contained as possible.
8. Plan a goal that a student will recognize. Example: You can do all the problems in 5 minutes with no errors; you will have all the mail sorted by zip code.

9. Include an inventory of items in the box. Direct learner to inventory component parts when he/she finishes and return them to the box. (Consumable materials - directions for replacing.)

Ask yourself...What will students learn from this? Is it tied to a skill or a job? Can it be related to what I teach? Are the components non-consumable? Or if consumable, easily inventoried and replaced?

Some Possible Ideas and Titles for A Shoe Box Kit Interest Center

Interior Designer
Water Pollution Control
T-Square Kit
Carpentry
Mail Carrier
Rock Garden
Pilot and Co-Pilot
Want Ads
Artist
Newspaper Reporter
How to Plant a Tree
Artificial Flower Arranging
Reconcile Bank Statement
A Cashier Makes Change
Planning A Budget
Card Catalog
Dressmaker
Wood Finisher
How to Make and Road Map Legends
Advertising Agent
Let's Hammer
How To Be A Cartoonist
Mail Box
So You Want To Be A Star
Install Piston Rings
Need a Friend?
What Does a Recording Engineer Do?
Giving A Shot
Gardner
Carpet Layer
Teller
Drafting
What a Ranch Hand Should Know
I'd Like to be a Secretary
Leathersmith
Who Can Set the Table?
I'd Like to be a Bookeeper
You Want to be a Barber
You Want to be a Veterinarian
Weather Forecasting
Lettering
Store Cashier
Careers in Sewing
Making an Extension Cord
Salesperson-Department Store
Tye Dye Art
Be A Fashion Designer
Flush Toggle Switch
Story Starter
Commercial Art: Package Design
Log Book
Dentist is a Health Worker
Bus Driver Please Take Me Home
Feelings in Stories
Spark Plug
Measuring
The Cook
Place Setting for Waitress
Book Mending
Weaving
Measuring Area
Mastery Circuits
Making Simple Solutions
Fly A Piece of Paper
Phototechnology
Seamstress
Can You Be An Electrician
Cake Decoration
Storytelling
Selecting Safe Toys
How a Florist Makes a Corsage
Lapidary
Be a Travel Agent and Plan a Trip
How a Rider Grooms a Horse
Theatrical Make-Up
Truck Driver
Construction
Dress Designer
Food Nutritionist
Be a Gift Wrapper in a Store
Interior Decorator
Plan a Party
You Want to be a Beautician

SAMPLE INTEREST CENTER

"What's My Line" Interest Center

This learning interest center is based on the game "What's My Line," as it was played on television several years ago.

First, each student researches a job of his own choosing and prepares himself to answer questions concerning this job. Then, the game moderator selects a panel of four, plus a timekeeper. This selected panel questions four students who are usually volunteers. The students who are questioned can only answer "yes" or "no," but the moderator might have to intervene now and then to qualify an answer.

Each panel member asks questions for one minute, after which the timekeeper blows the whistle and the next panel member takes up the questioning where the last member left off. In the event the panel does not guess the job in seven minutes, the student being questioned tells what he does. After this selected panel has questioned the four volunteers, the four having been questioned serve as panel members and four more volunteers are questioned. Thus, each student serves as a panel member and as the guest with the job.

If the panel members are provided with some of the leading questions, the game gets off to a good start, and the students relate to the theory of job studies. It is usually good to start by finding out whether the job is of a manual, mechanical, etc., nature. This also helps to keep the audience "on their toes."

This game can form the core of an interest center. Spin off activities could provide further information through reports, displays, diaramas, etc.

SAMPLE ACTIVITY FOR AN INTEREST CENTER

The study of foreign language is important to become a:

R	O	T	C	U	D	N	O	C	B
E	O	L	A	B	T	E	C	H	C
M	S	T	F	O	R	P	T	E	O
O	I	C	A	D	E	R	S	M	M
N	N	F	G	L	O	M	I	I	P
O	G	H	V	T	S	A	T	S	O
R	E	I	C	E	J	N	R	T	S
T	R	O	K	L	T	M	A	N	E
S	D	O	W	R	I	T	E	R	R
A	B	I	O	L	O	G	I	S	T

Can you find 14 careers?

Hint: One abbreviated (2 words)
One abbreviated (3 words)
Two abbreviated (1 word)

SAMPLE ACTIVITY FOR A "TRANSFERABLE SKILLS" INTEREST CENTER

Cooperation Game

"Five Squares"

Major Concept: There are many occupations which require cooperation among the workers in order to get the job done. Some of these are: Assembly line and manufacturing, education careers, health and construction occupations, etc.

Instructions to the Group

In this package are five envelopes, each of which contains pieces of cardboard for forming squares. When the instructor gives the signal to begin, the task of your group is to form five squares of equal size. The task will not be completed until each individual has before him a perfect square of the same size as that held by others.

Specific limitations are imposed upon your group during this exercise:

1. NO member may speak.
2. NO member may ask another member for a card or in any way signal that another person is to give him a card.
3. Members may, however, GIVE cards to other members.

Directions for Making a Set of Squares

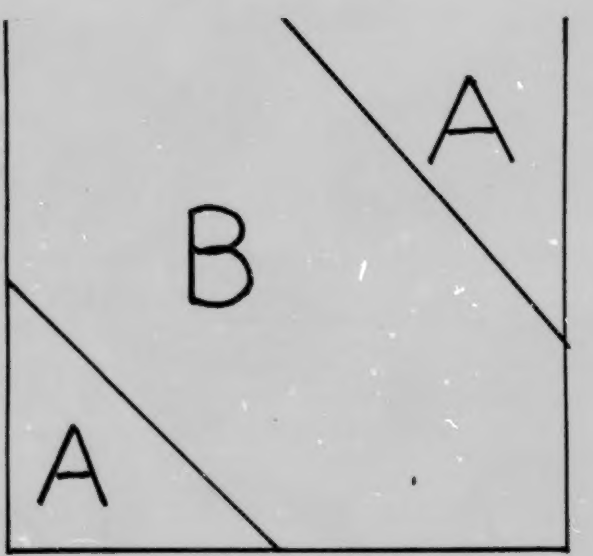
The lines should be so drawn that when cut out, all pieces marked "A" will be exactly the same size, all pieces marked "C" of the same size, and so on. By using multiples of three inches, several combinations will be possible that will enable participants to form one or two squares, but only one combination is possible that will form five squares six by six inches.

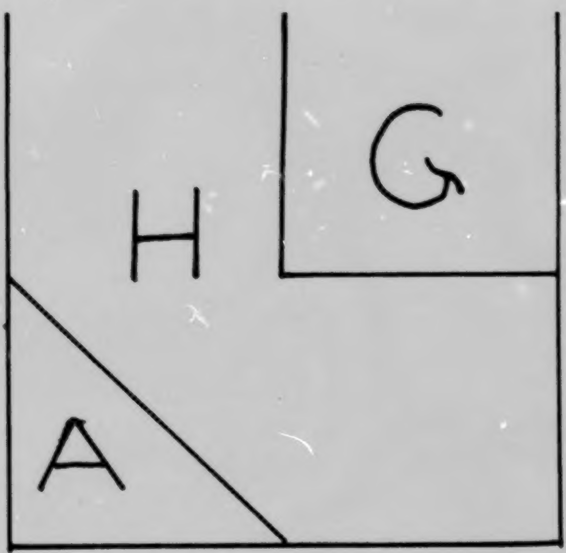
After drawing the lines on the six-by-six inch squares and labeling them with lower-case letters, cut each square as marked into smaller pieces to make the parts of the puzzle.

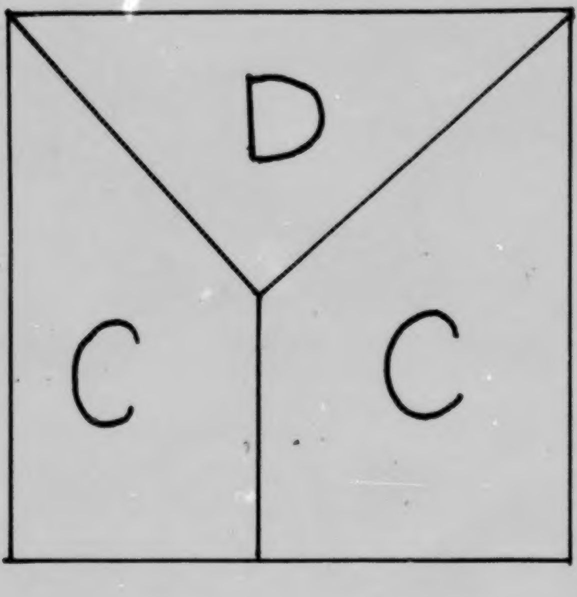
Mark each of five envelopes A, B, C, D, and E. Distribute the cardboard pieces in the five envelopes as follows:

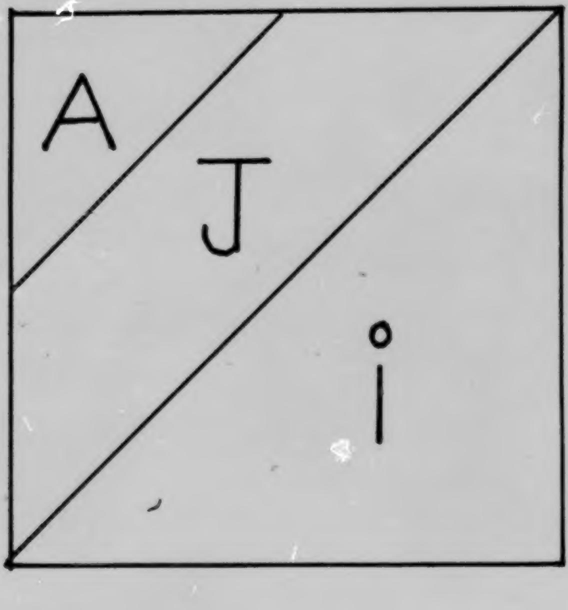
Envelope A has pieces i, h, e
Envelope B has pieces a, a, a, c
Envelope C has pieces a, j
Envelope D has pieces d, f
Envelope E has pieces g, b, f, c

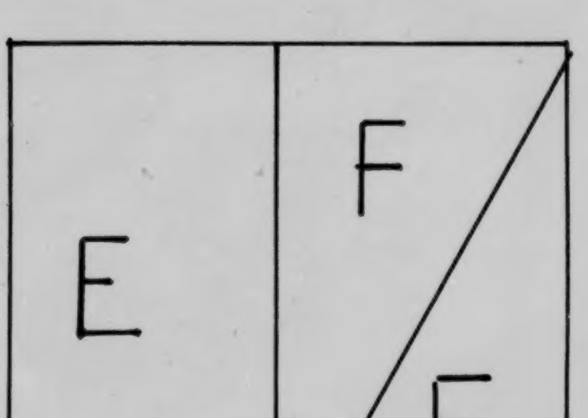
Erase the penciled letter from each piece and write, instead, the appropriate envelope letter, as Envelope A, Envelope B, and so on. This will make it wasy to return the pieces to the proper envelope for subsequent use.


A
B
A


G
H
A

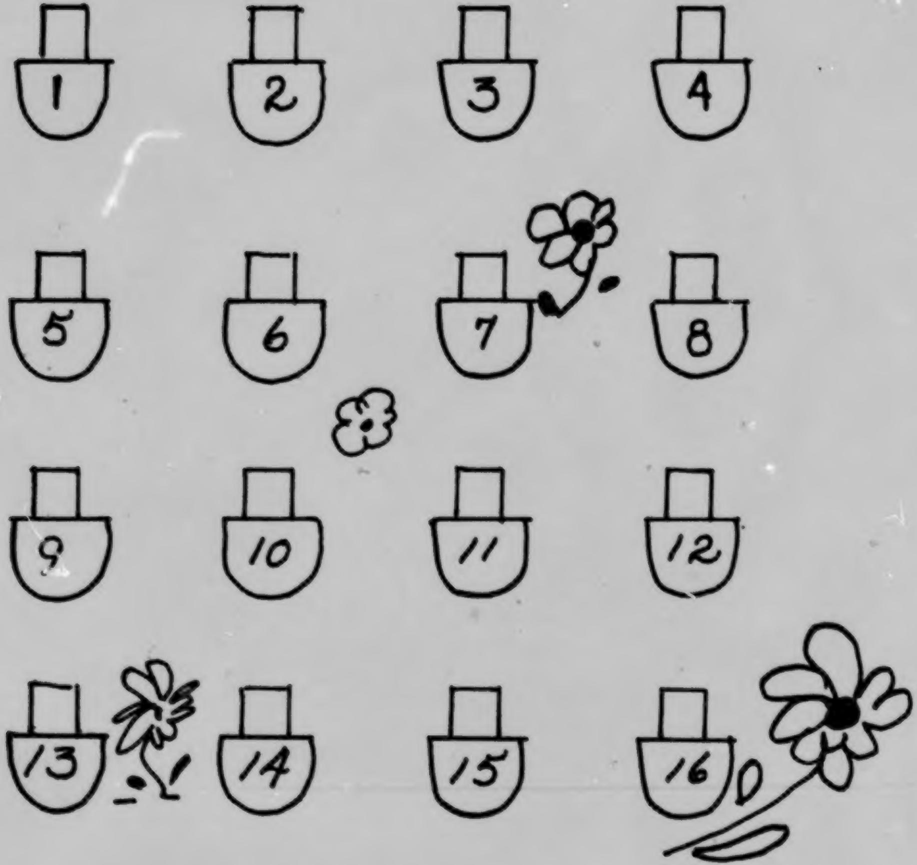

D
C
C


A
J
i


F
E
F

SAMPLE CAREER GAME FOR AN INTEREST CENTER

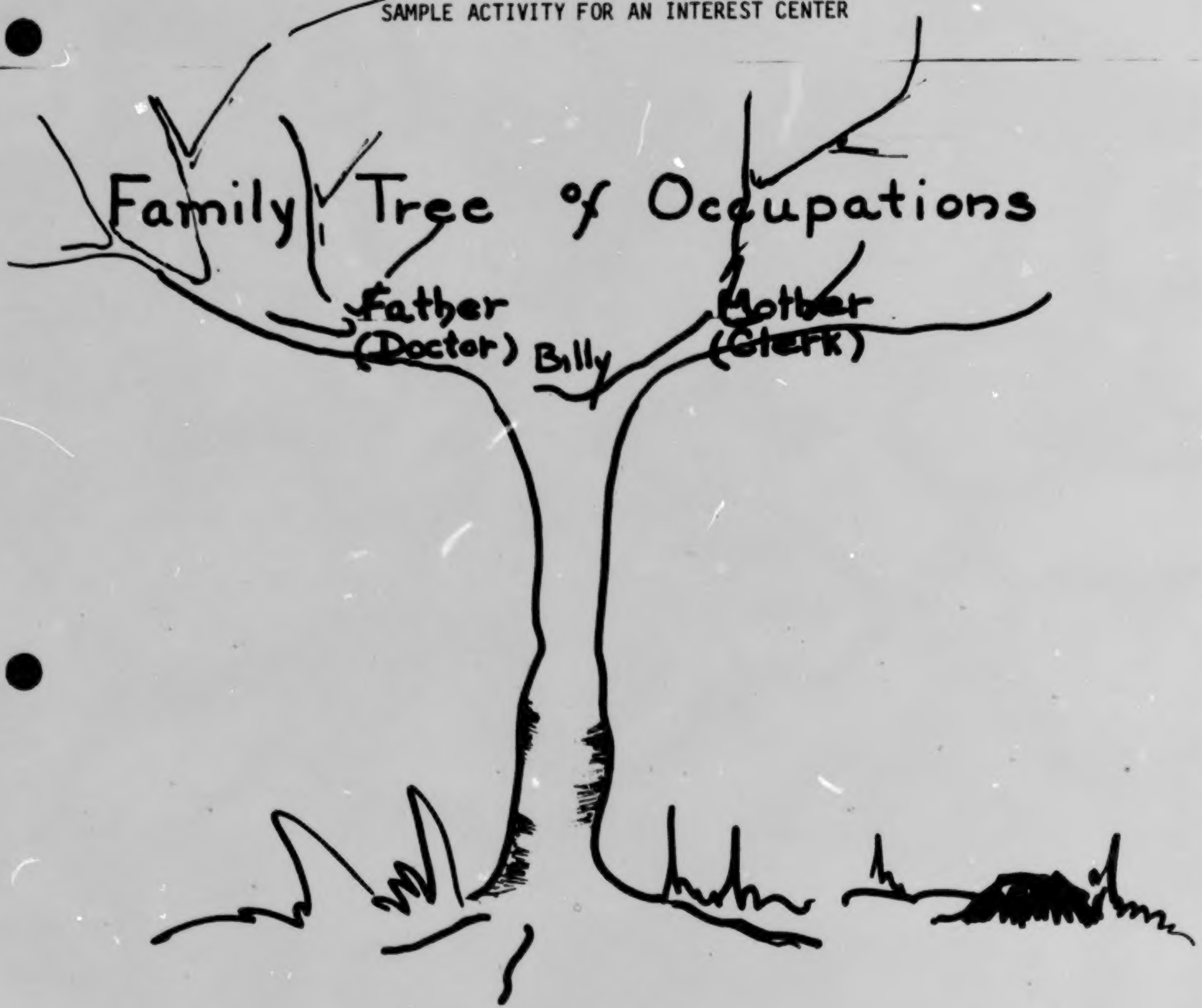
Concentration



CONCENTRATION

Fill the packets on a board with various occupations. There will be two of each occupation, and play it as a regular concentration game. You could use several job attitudes in the pockets too.

SAMPLE ACTIVITY FOR AN INTEREST CENTER

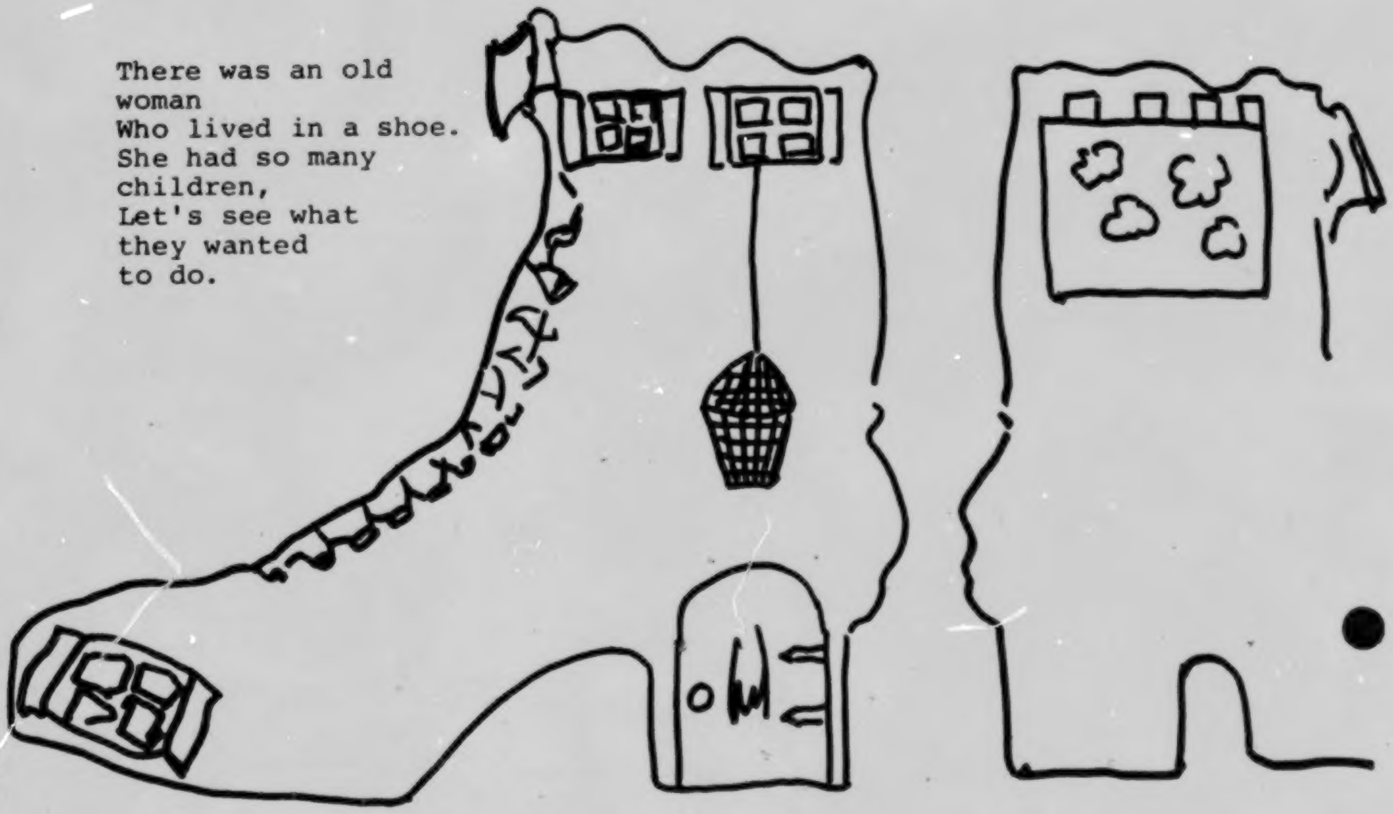

Family Tree of Occupations
Father
(Doctor)
Billy
Mother
(Clerk)

FAMILY TREE OF OCCUPATIONS

Students trace the occupations of their ancestors. They discuss the various types of occupations and how they change over the years.

SAMPLE ACTIVITY FOR AN INTEREST CENTER

There was an old
woman
Who lived in a shoe.
She had so many
children,
Let's see what
they wanted
to do.



THE OLD WOMAN IN THE SHOE GAME

In the pocket of Clancy, the Clown, or The Old Woman in the Shoe, have strips of tagboard on which are written names of different workers. Children may take out a slip, state the job and dramatize something pertaining to the worker. As an individual project, the child could look up information on or draw a picture about the worker he drew from the pocket.

CHAPTER VIII

USING COMMUNITY RESOURCES FOR CAREER EDUCATION

This session is devoted to the appropriate use of community resources for career education. The goal and process of this activity is to identify a wide variety of program approaches in using community resources for career awareness in the elementary school. The final outcome of this session will be the actual design and development of a community resource program appropriate to the needs of the group.

If you choose to use the low-structure approach, the first activity to conduct with the class as a whole will be a brainstorming process to identify all the possible approaches in using community resources. The essential aspect of this brainstorming technique is the acceptance and recording on newsprint of virtually whatever anyone in the group provides. Debate and/or discussion are not appropriate brainstorming behaviors. Rather, as full and complete a "laundry list" of ideas as possible is desired. A wide range of options and activities will be cited. Included among them should be such items as career speakers bureaus; career mini-course programs; career information resource centers; field trip programs; career interview cassette files; resource person files; shadowing experiences; internship experiences; apprenticeship experiences; and the like. The brainstorming process will generate as wide an array of activities as possible.

The second step in this process will be the generation of a Table of Specifications, or set of guidelines, for a comprehensive community resource program. Maintaining a low-structure approach, the entire class should now be divided into three small groups.

The first task of each small group will be to choose one of the community resource ideas from the brainstorming session and develop a set of guidelines for establishing that program. The handout materials will serve as a valuable resource in this process. Such categories of questions as: "Who can participate in the program?" "Who will be involved?", etc. will frame the design of the program.

After the descriptors - or guidelines - for a program have been established, they will be applied to thoroughly answer each of those questions. Each group will answer these questions for the one program area it has chosen from the brainstorming session. Approximately thirty minutes should then be left at the end of the session so that each of the three groups can report out their results with sufficient time for group interaction, critiquing, improving the program design, increasing the structure, etc.

If a high-structure approach is desired, the instructor should begin the session by providing a comprehensive listing of the possible program approaches for using community resources, and review them with the group. The instructor should then carefully guide the entire class through the process of developing the set of guidelines for these programs. One of those program approaches should be selected and again the whole group should work through a program description, answering each of the program description questions under the careful direction of the instructor. This process will take much less time than the low-structure inquiry model. Consequently, after the whole group has developed one program with the teacher, each individual student should choose any one of the other programs identified on the list and design his/her own program. If this cannot be completed in class it should be completed at home, and submitted at the next session as an assignment.

Regardless of the treatment chosen, this will be a lively, stimulating session. The three objectives: (1) identifying possible programs, (2) developing guidelines, and (c) applying these guidelines to the development of one program will provide the participants with some of the skills needed for the effective use of community resources.

SESSION NINE
USING COMMUNITY RESOURCES FOR CAREER EDUCATION

OBJECTIVES:

1. The student will identify a variety of program approaches for using community resources in career education.
2. The student will identify guidelines for developing exemplary programs utilizing community resources.
3. The student will design a program utilizing community resources.

HIGH-STRUCTURE GUIDELINES

1. The instructor will provide a listing of types of program approaches:

   Career Speakers Bureau
   Career Mini-Courses
   Information Resource Center
   Field Trip Program
   Interview File
   Shadowing Experience
   Internship Program

2. With the instructor providing leadership, the class as a whole will choose one approach and:
   a. develop a set of guidelines for developing an exemplary program.
   b. design a program description by responding to the following:
      -who can participate in the program?
      -what will the participants do?
      -what are the program objectives?
      -when will the program be scheduled?
      -where will the program be held?
      -who will be responsible for the program?
      -what kind of planning is necessary?
      -what resources are needed?
      -how will the program be evaluated?
      -how will individual learning be assessed?

LOW-STRUCTURE GUIDELINES

1. Have the whole class brainstorm and identify program approaches in using community resources. These might include: career speakers bureau; career mini-course program; career information resource center; field trip program; career interview cassette file; resource person file; shadowing experience; internship/apprenticeship program.

2. Working in groups of three, the group will choose a community resource approach and:
   a. develop a set of guidelines for developing an exemplary program.
   b. design a program description by responding to the following:
      -who can participate in the program?
      -what will the participants do?
      -what are the program objectives?
      -when will the program be scheduled?
      -where will the program be held?
      -who will be responsible for the program?
      -what kind of planning is necessary?
      -what resources are needed?
      -how will the program be evaluated?
      -how will individual learning be assessed?

SESSION NINE (Continued)

HIGH-STRUCTURE GUIDELINES	LOW-STRUCTURE GUIDELINES
3. Each individual will choose an approach and design his/her own program description. This task should be completed as a homework assignment.	3. Each group will have at least 10 minutes to present its program design. The rest of the class will critique the presentations.

RESOURCES:
1. Handout - "Why Community Organizations Want to Help"
2. Handout - "Major Types of Assistance Available"
3. Handout - "Making Career Education a Two-Way Street"
4. Handout - "Community Organizations: Categories and Types"
5. Handout - Sample Career Internship Contract
6. Handout - Sample Career Internship Log
7. Handout - Sample Activity - Vehicle Day

ASSIGNMENT: Bring in commercial career education materials for the class to review.

USING COMMUNITY RESOURCES FOR CAREER EDUCATION
SESSION NINE - CONTENT OUTLINE

1. Community resources include:
    a. Human resources
    b. Print materials
    c. Non-print materials
    d. Institutional resources
2. Community resource approaches include:
    a. Speakers bureau
    b. Mini-courses
    c. Resource center
    d. Field trips
    e. Interview file
    f. Shadowing programs
    g. Internships
3. Program descriptions include:
    a. Qualifications for participation
    b. Activities
    c. Objectives
    d. Scheduling procedures
    e. Management procedures
    f. Roles and responsibilities
    g. Planning
    h. Resources required
    i. Program evaluation
    j. Learning assessment

RESOURCE MATERIALS

UTILIZING COMMUNITY RESOURCES

WHY COMMUNITY ORGANIZATIONS WANT TO HELP*

Most community organizations will want to cooperate with the schools for one or more of the following reasons:

1. Involvement helps business and industry to meet their public service responsibilities.
2. Cooperation insures a greater input in the development and revision of curriculum, guidance programs, and educational policies.
3. Participation in career education activities provides an opportunity to better understand and evaluate the educational effort in terms of local community needs.
4. Participation by workers results in considerable personal satisfaction from helping students develop their interests, abilities, and attitudes.
5. Participation in cooperative educational programs results in an improved public image of the organizations involved.
6. Students will leave school with better preparation and more realistic perceptions of the world of work and its demands.
7. Most members of community organizations have a genuine concern for youth and want to do whatever they can to help each student realize his fullest potential.

The extent to which the school succeeds in the total involvement of its community organizations in the career education effort will, to a significant degree, determine the immediate success of career education and the ultimate success of the school as an integral and interacting part of the community.

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*Handout materials describing the use of community resources are excerpted from materials published by the National Center for Research in Vocational Education, The Ohio State University, Columbus, Ohio.

UTILIZING COMMUNITY RESOURCES

MAJOR TYPES OF ASSISTANCE AVAILABLE

The types of assistance potentially available from community organizations to schools can be as varied as the thousands of existing community organizations. The limit is determined only by the imagination of the educator, his knowledge of community resources, his willingness to lead the way, and his initiative and flexibility.

To detail the innumerable examples of career education community assistance projects would be unrealistic. However, the following is a rather extensive list of activities and services that are available in most communities.

1. Assisting in the development of school policies.
2. Helping in the formulation of school objectives.
3. Assisting in the development of specific programs.
4. Providing opportunities for field trips to various businesses and industries.
5. Providing business and industry personnel to schools for teaching and other services.
6. Assisting students in obtaining on-the-job training through cooperative educational programs.
7. Helping in the development of curricula relevant to the world of work.
8. Providing industrial equipment and machines to schools for use in instruction.
9. Providing raw materials to schools for use in instructional programs.
10. Furnishing books, pamphlets, and other printed material for use in instruction.
11. Furnishing school teachers and counselors with information on educational requirements for various jobs.
12. Providing the schools with information on manpower needs.
13. Assisting the schools in the development and use of aptitude and achievement tests.
14. Evaluating the physical plants of schools in terms of the layout of facilities, the use made of facilities, etc.

15. Providing exploratory and "hands-on" training opportunities to students.

16. Furnishing other instructional aids (e.g., sample kits of raw materials, finished products, exhibits, training aids, etc.) for use in classroom and shop instruction.

17. Furnishing schools with directories of business and industry resource persons.

18. Providing opportunities for teachers and support personnel to obtain work experience in businesses and industries.

19. Arranging for visits to business offices and industrial plants by teachers and staff.

20. Conducting seminars on various topics for teachers and staff.

21. Assisting in the management of schools in various ways (e.g., budget preparation, financial planning, transportation planning, procurement advice, etc.).

22. Providing financial support for student recognition programs (scholarships, camperships, and other awards).

23. Providing public relations support for the schools and their programs.

24. Providing one-to-one tutorial assistance.

25. Providing interviewing, testing, and placement assistance.

26. Providing feedback on performance of graduates and information on continuing education needs.

These are some of the more common community activities and services that can be joint ventures in career education. Often, the most effective means of developing a cooperative program is for the educator to arrange for community organizatin representatives to critique their past experiences with the schools and then to seek mutually acceptable methods for resolving any problems which surface. The most important thing is to respond as quickly as possible, immediately involving them in the solution.

UTILIZING COMMUNITY RESOURCES

MAKING CAREER EDUCATION A TWO-WAY STREET

By Edwin M. Stanley*

> Edwin M. Stanley is President and Chairman of the Board of Data-Time, Inc., a Portland, Oregon, manufacturer of solid state timing and measuring systems. He holds an MBA from Harvard Graduate School of Business.
>
> A strong advocate of Career Education, Mr. Stanley suggests that the most effective and economical method of educating for the world of work is to use resources already available in the community. He attacks the notion that work situations can be simulated in the classroom with any degree of success and believes that businessmen would welcome the opportunity to have an active role in preparing young people for adult responsibilities. He suggests that an early insight into employer expectations and work responsibilities will give students an edge on those who do not have a similar chance to test reality.

Listen carefully, and you discover that communication between the education and business communities is not taking place. Town and gown should be discussing how today's students can be prepared to direct tomorrow's world. Instead, business and education are delivering a series of monologues.

What is the result of this lack of communication? A graduate comes to my placement office with no accurate idea of what he can offer us or what the work world can offer him. The very success of our enterprise depends on the talents of this young person, and yet we're forced to look helplessly at him, wondering what his reality is and how we should respond to it.

How different--and how delightful--if a prospective employee were to come to us and say, "In high school I had some exposure to electronics and job experience, and I'm really turned on by what you're doing in assembly and production. I'd like to take some engineering courses at night and want to work up in your organization to production, perhaps engineering." We would leap out of our chairs getting him an application blank and a pencil.

The Businessman as Educator

Actually, there's no reason why a dichotomy between business and education should exist. Both are engaged in the same activities, and often they share the same goals.

Surprising as it may seem, the business community--with its primary reliance on people--performs a variety of educational tasks daily.

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*Edwin M. Stanley. "Making Career Education a Two-Way Street," Essays on Career Education. Ed. Larry McClure and Carolyn Buan (Portland, Oregon: Northwest Regional Educational Laboratory, 1973), pp. 186-190.

Hiring employees is in itself an educationally related task similar to admitting students to a university. The employer must decide who is trainable and who isn't, who is motivated and who isn't, who has realistic expectations and who doesn't. After he has his employees on board, the employer has another set of "educational" problems to consider, problems concerned with human relations, sensitive management, on-the-job training, and staff development.

So acute is the need for educating employees that, I suspect, in 10 or 20 years most companies will have a vice president for education. As I see it, education is definitely a corporate function. In most businesses, the major cost component is labor dollars. Educating employees is the process by which we try to optimize our investments in people, and we can learn a lot about educating them from the schools.

Bringing Business and Education Together

Why, we must ask ourselves, have educators and businessmen failed to get together? The fault lies, as most faults do, with both parties in question.

In the past, business had little use for the world of education because education has tended to be a mystical responsibility of the select few. Educators have tended to say, "we will do only what we think needs to be done, in ways only we can understand." Education has ignored the business world too, largely because business has not been vocal enough in expressing its needs or active enough in making its resources available.

Career Education may offer a chance and a channel for some much-needed communication. In fact this two-way street may be the real strength of Career Education.

Perhaps the relation between business and education ought to be in the nature of a trade. Perhaps educators should go to the business community and offer the millions of dollars worth of equipment, the facilities, methods, curriculum, and highly trained staff in return for jobs, specialized equipment, and learning situations in the business world. What we would have is a trade of educational resources for real experiences using industrial resources.

Consider this situation: Joe, a middle-aged welder who has mastered his trade, still feels a nagging desire for self-improvement. Why couldn't he find a positive outlet and derive a sense of deep satisfaction from acting as a teacher of welding in a local Career Education program? For instance every Friday afternoon 15 students might come and receive welding instruction directly from the man who knows it best. Some of Joe's "students" might even elect to work part time for credit in the company shop. As a result of this experience, all 15 students would understand the welding trade better, although a few might only learn that welding is not for them.

Or take another situation. A business representative from Belgium is in town visiting a local corporation. He might prepare a video-tape on the political and economic systems in his own country. This would make an excellent contribution to learning for classes studying current affairs on comparative economic systems that the school textbook (which may be out-of-date) could not provide.

Since many corporate enterprises already spend time exposing people in management training to various departments in their firms, why not use these kinds of programs as models for exploratory experiences that would allow school-aged young people to test reality?

We in the business world have seen what it is like when people come to us not knowing what to expect. We would like educators somehow to make it possible for young people to discover what it's like to hold different kinds of jobs, so graduates will have a better idea of what they do and do not want as careers.

Strategies for Getting the Job Done

Now that the need for interaction between the business and education communities has been established, implementation becomes the real challenge. There are always those who will look upon any new program, new business venture, or new product with skepticism. Borrowing some strategies from marketing experts, I believe that implementation will be smoother if we avoid involving institutions or individuals antagonistic to the program until it is established and expansion can begin.

To the essential question--"What can I do best, and what can the other fellow do for me?"--each community has four alternatives it can pursue.

The businessman faced with solving an employee educational problem can use his own facilities and his own personnel for that purpose; he can import personnel to teach in his own facilities; he can send his own expert personnel to teach his employees using the school's facilities; or he can send people needing educational services into the schools, utilizing expert school personnel.

These same four alternatives are available to the school: school officials can build a metal shop and hire someone as a metals teacher; they can hire a paraprofessional from Ace Metal to staff the school shop; they can send a class, under the supervision of one of the metals teachers, to use the Ace Metal facility; or they can send students to Ace Metal to be taught by Ace Metal personnel.

In the same way that the vice president for education will have to coordinate various educational experiences for employees, the director of a Career Education program will have to become a "broker" coordinating the resources of his community.

One career education strategy I do not support is simulation, in the school, of experiences that are probably available not more than 1000 yards away. If a teacher would take students out the door of the school, down the block, knock on a door and say, "May we come in and watch for half an hour?" - who would refuse? It makes more sense to me to ask for money for buses to take students to real-world situations around town, than to waste money on instructional simulations that are based on inadequate approximations of real experiences. Not only is equipment costly, but there is no way schools can afford to keep pace with the vast changes in technology that the business and industrial community must face daily.

Were I to have a hand in designing the educational program of a new community, I would try wherever possible to buy the services of those who are involved with community problems on a day-to-day basis. I would go to a lawyer who charges $50 an hour for his services and buy some of his time each month to conduct seminars on the legal aspects of good citizenship. This educational program would be available to youth, employees, and senior citizens as well. Anyone, "school-aged" or not, should be served. People must come to see that education is a process that does not end after graduation and job entry.

Career Education as Exposure

Perhaps the major function of career education is exposure. It may not be as directive as we tend to think it is. Every young child eventually cuts his hand and burns himself and learns how to avoid such events in the future. Maybe every teenager should have the experience of showing up late and having his supervisor upset with him. This is part of the down-side risk which should be experienced early in the preparation process rather than later on in the career.

I recall when I was learning to fly an airplane I once almost landed with the wheels up. I approached for the landing and suddenly a horn sounded which indicated that the wheels were still up, even though the engines had been throttled back for landing. I had to respond and I had to respond quickly. Later my instructor told me he had been waiting patiently for at least 3 weeks for that to happen so that I would be forced to react appropriately--to put theory into practice. We had simulated that very experience two or three times in the air but my instructor knew that my skills would be more sharply refined by actually experiencing the condition.

Youth organizations like Junior Achievement and Distributive Education Clubs of America are the closest things in the educational system today that approach reality. Activities like the senior class play, the school orchestra, and the chorus give students real-life experiences. The other 95 percent of the kids who do not participate are in trouble. It is through a new kind of alliance with business, industry, and commerce--better yet, the community--at large-- that their needs for reality will be met.

UTILIZING COMMUNITY RESOURCES

COMMUNITY ORGANIZATIONS - CATEGORIES AND TYPES

In categorizing and analyzing an area's community organizations, the career educator should be aware that ours is an organizational society. The numbers and types of organizations in a given community, particularly an urban community, can be staggering and almost beyond comprehension. One way to deal with this situation is to adopt a discriminating attitude in regard to groups who are likely to deliver and those with whom a lot of effort will produce little positive results. Once again there is no consistent pattern from community to community, but the career educator must use his best judgment and knowledge of organizations and personalities to assure that he does not spend valuable time going down blind alleys or pursuing false promises.

Primary clusters and sub-clusters of community organizations which are most typically interested in school related projects and which have resources adaptable to the broad spectrum of career education include:

1. Business and Industry

    a. Large companies and corporations
    b. Small neighborhood businesses
    c. Business and trade associations
        (1) Association of Manufacturers
        (2) Grocers' Association
        (3) Local Retailers' Association
        (4) Real Estate Boards
        (5) Gasoline Dealers Association, etc.
    d. Local and National Chambers of Commerce
    e. Local Business-Education Coordinating Councils
    f. Business sponsored civic bodies
        (1) National Alliance of Businessmen
        (2) Local and National Urban Coalitions
        (3) Local Renaissance Committees, etc.
    g. The several types of inter- and intra-business and industrial consortium committees unique to various communities

Local Chambers of Commerce will frequently make available a membership directory which includes many of the above.

2. Service Clubs

    a. Business and Professional Men's Clubs
        (1) Rotary
        (2) Kiwanis
        (3) Lions
        (4) Optimists
        (5) Civitans, etc.
    b. Service and Fraternal Organizations
        (1) Elks
        (2) Shriners

        - (3) Masonic Lodges
        - (4) Volunteer Firemen's Association, etc.
    - c. Young People
        - (1) Jaycees
        - (2) Junior League of Women
        - (3) Church related groups, etc.
    - d. Women's Clubs
        - (1) Professional clubs and sororities
            - (a) Business and Professional Women
            - b) Zonta
        - (2) Garden Clubs
        - (3) Masonic Groups
        - (4) Church Groups
        - (5) Art Groups
        - (6) Music Groups
        - (7) Literary Groups
        - (8) Federations of Women's Clubs, etc.

In many communities the local Federation of Women's Clubs will make available a directory of the scores of local women's clubs and their officers.

3. Professional Organizations

    - a. Certified Public Accountants
    - b. Local Registered Nurses Associations
    - c. Society of Engineers
    - d. Policeman's Benevolent Association, etc.

4. Governmental Agencies

    a. City, Township, and Village Government

    Cities, in particular, offer a wide range of departmental services and often work in close harmony with schools.

    b. County Government

    County departments of planning, social services, etc., are usually cooperative resources.

    c. State and Federal

    An effective means of becoming acquainted with governmental services at all levels is through respective selected officials who, upon request, are eager to be of service in furnishing comprehensive directories, or other pertinent information.

5. Organized Labor

    - a. Teachers' Federations/Associations
    - b. National Education Association
    - c. Skilled Trade Unions

d. United Auto Workers
e. Teamsters
f. United Mine Workers
g. American Federation of Labor
h. Amalgamated Clothiers Union, etc.

Labor unions represent a somewhat unique resource in that their resources and community involvement are frequently masked by the public's perception of them as simply advocates for their membership while on the job. In reality, many unions are extremely community oriented, having an abiding interest in the total welfare of their members including education, and can back up their interest with personal representation and other resources. To the educator, unions deserve special recognition in that they are often representatives of very large blocks of taxpayers, parents, and school area residents. They can also serve as conduits of information and can be used as excellent sounding boards and sources of advisory committee personnel. Personal rapport with community labor leaders is a worthwhile resource in and of itself.

6. Church Organizations

Again, in the case of churches, it pays to have a thorough understanding of community resources, especially the attitudes of the various churches with regard to community involvement. By and large, church affiliated organizations can undertake many cooperative projects in career education. They are often generous in donating the use of their physical facilities for educational activities. If there are local organizations representing several denominations, it is often more productive and less controversial to coordinate programs through such auspices.

As in the case of labor unions, churches are valuable conduits for information to a large number of grass roots community members. Contacts may be made through:

a. Local Pastors' Associations
b. Individual Churches
c. Regional Denominational Offices

Financing for projects that are otherwise difficult to support can often be found through regional denominational offices.

d. Associations within churches
    i.e., Women's Auxiliaries
    Youth Associations
    Fraternal Groups
    Vestry Associations, etc.
e. National and Regional Bodies
    (1) National Council of Churches
    (2) United States Catholic Conference
    (3) Roundtable of Christians and Jews, etc.

7. United Way or United Fund Sponsored Organizations

a. YMCA - YWCA
b. Boy Scouts, Girl Scouts, Explorers

c. Campfire Girls
d. Boys' Clubs of America
e. 4-H Clubs
f. Health Agencies
   (1) Mental Health Societies
   (2) Cancer Foundations
   (3) Heart Associations, etc.
g. Social Services Agencies
   (1) Family Services
   (2) Child Welfare
   (3) Physically Handicapped
   (4) Big Brothers, etc.

A call to the local United Fund office will quickly produce a list of all of their agencies and usually the addresses and names of contact persons.

8. Civic and Quasi-Political Organizations

a. Urban Coalition
b. Leage of Women Voters
c. Junior League of Women, etc.

It is not uncommon for these organizations to set their own annual plan of community involvement and solicit input from those knowledgeable about public education. It would seem advantageous for educators to take advantage of opportunities to participate in such planning, as these organizations usually have exceptional talents and resources for working with education.

9. Volunteers.

In most communities there are individuals or groups who alert the school that they are on call for volunteer work. The career educator can make good use of this community resource by attempting to fit the person to the appropriate task. It is vitally important that a volunteer not be misused, and should a misassignment take place, the educator must be sensitive enough to detect it and make an adjustment. Again the educator has some responsibility for making the proper judgment and seeing that the volunteer does not become frustrated by a job that simply does not match his personality or capability.

Volunteers might come from any of the listed organizations, from the school attendance area, or in some cases from college student volunteer offices now established in many communities.

10. Civil Rights Organizations

a. NAACP
b. Urban League
c. National, State or Local Civil Rights Commissions
d. Human Relations Boards

e. Urban Coalition
f. Opportunities Industrialization Centers (OIC)
g. Affirmative Action Boards
h. Latino Organizations, etc.

These organizations cover a very broad range of interests and activities, but they all have a special concern for education and its career aspects. Their special resources often lie in their sensitivity to the problems of minority students and they can play a vital role in assisting the school in the planning, development, and implementation of programs affecting these youngsters. They are also an invaluable source of minority volunteer assistance and communication to the minority community.

11. Parent-Teacher Organizations and School Community Councils

Often the backbone of a successful school-community relationship, these organizations are a kind of full-time sounding board and advisor to career educators. They can relate the general reaction and needs of the community, play both a generalist and specialist role, and function as liaison team members between the educator and the many other community organizations previously reviewed. A school intent on developing strengths in career education might do well to look first to the competency and organizational strength of these bodies and make them priority goals.

While the preceding eleven categories were selected in an attempt to cover the major areas of community organizational resources, the sublists are meant only to serve as examples and are by no means all inclusive. It is anticipated that career educators will find this basic outline useful in developing their own list for their school community.

Major Types of Assistance and Services Available

The services potentially available from community organizations to career education can be as varied as the thousands of existing community organizations. The limit is determined only by the imagination of the career educator, his knowledge of community resources, his willingness to lead the way, and his initiative and flexibility.

To detail the innumerable examples of career education community service projects would be unrealistic. However, the following is a rather extensive list of activities and services that are available in most communities. Many of the activities are taken from a list compiled by Burt (1971).

1. Assisting in the development of school policies.

2. Helping in the formulation of school objectives.

3. Assisting in the development of specific programs.

4. Providing opportunities for field trips to various businesses and industries.

5. Providing business and industry personnel to schools for teaching and other services.

6. Assisting students in obtaining on-the-job training through cooperative educational programs.

7. Helping in the development of curricula relevant to the world of work.

8. Providing industrial equipment and machines to schools for use in instruction.

9. Providing raw materials to schools for use in instructional programs.

10. Furnishing books, pamphlets, and other printed materials for use in instruction.

11. Furnishing school teachers and counselors with information on educational requirements for various jobs.

12. Providing the schools with information on manpower needs.

13. Assisting the schools in the development and use of aptitude and achievement tests.

14. Evaluating the physical plants of schools in terms of the layout of facilities, the use made of facilities, etc.

15. Providing exploratory and "hands-on" training opportunities to students.

16. Furnishing other instructional aids (e.g., sample kits of raw materials, finished products, exhibits, training aids, etc.) for use in classroom and shop instruction.

17. Furnishing schools with directories of business and industry resource persons.

18. Providing opportunities for teachers and support personnel to obtain work experience in businesses and industries.

19. Arranging for visits to business offices and industrial plants by teachers and staff.

20. Conducting seminars on various topics for teachers and staff.

21. Assisting in the management of schools in various ways (e.g., budget preparation, financial planning, transportation planning, procurement advice, etc.)

22. Providing financial support for student recognition programs (scholarships, camperships, and other awards).

23. Providing public relations support for the schools and their programs.

24. Providing one-to-one tutorial assistance.

25. Providing interviewing, testing, and placement assistance.

26. Providing feedback on performance of graduates and information on continuing education needs.

These are some of the more common community activities and services that can be joint ventures in career education. Often, the most effective means of developing a cooperative program is for the educator to arrange for community organization representatives to critique their past experiences with the schools and then to seek mutually acceptable methods for resolving any problems which surface. The most important thing is to respond as quickly as possible, immediately involving them in the solution.

Evaluation and Accountability

It should not be assumed that all community organizations are especially enamored with their local public schools. On the contrary, many organizations, for one reason or another, are skeptical of the school's ability to deliver and/or follow through on its proposals. Career educators, therefore, may frequently have a selling job to do to encourage community organizations to participate. Part of this sales approach should be the built-in assurance by the schools of program evaluation and accountability.

If the educator is successful at encouraging a community organization to cooperate in a joint career education venture, the results of regular periodic evaluative procedures can strengthen the bond of cooperation and add new incentive to the project. The benefits of good evaluation systems are, of course, always of value to the schools themselves in determining their success at reaching prescribed benchmarks and in planning for continuation and/or expansion.

The process of community organization involvement itself can be an asset to the accountability process in that it allows those to whom the schools are accountable to have a personal stake in the program planning and implementation. This approach not only provides community organizations with direct input opportunities to the schools, but gives them first-hand experience upon which to base their judgments.

In brief, accountability becomes a more sensitive and volatile issue when parties are excluded from the process. On the other hand, accountability procedures function best in an atmosphere of mutual trust where all parties are participants in the process.

Summary

It is apparent that career education has found advocates in all sectors of the community. It is a concept whose time has come and it demands that school people share their responsibilities with the broader community--a challenge that, aggressively pursued, holds exciting promise for education.

There are growing numbers of individuals and community organizations who would support the contention of Peter Drucker (1969) that, "Education has become too important to be left to educators...education has also become too powerful to go unchallenged, for schooling increasingly controls access to careers, opportunities, and advancement. For all these reasons education must become a public issue...The schools, their structure, their role, their objectives, and above all, what they teach will, therefore, become increasingly a major concern." Rather than viewing such statements as threats, career educators might do well to seize the initiative to practice their "I'm OK" posture and view this growing public concern as a unique opportunity for public education.

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UTILIZING COMMUNITY RESOURCES

SAMPLE CAREER INTERNSHIP CONTRACT*

An agreement of common purpose between

____
The Intern

and

____
The Mentor

Law
Career Interest

Student's Address ______________________ Telephone No. ________

School ____________________ Counselor ____________ Tel. No.____

Mentor's Address ______________________________ Tel. No.____

Time Schedule: ____

---

*This form was developed by the Board of Cooperative Educational Services, West Nyack, New York, and is reproduced with the permission of that organization.

Statement of Purpose:

To provide an opportunity for secondary school students in the County to explore a wide variety of professional and technical career options in the "real world of work."

The one-to-one partnership herein outlined between the individual student (the Intern) and the volunteer adult (the Mentor), has been arranged toward the accomplishment of that purpose.

GENERAL OBJECTIVES	COMPLETION DATE	COMMENTS
The Intern will:		
1. Research his/her career interest prior to the initial meeting with mentor in order to have some fundamental knowledge of the career to be explored.		
a. The following resource books are available in the guidance office: Concise Handbook of Occupations; Dictionary of Occupation Titles (DOT); Occupational Outlook Handbook		
2. Be able to write a job description in a minimum of two paragraphs, to include 5 major functions and/or responsibilities of the job.		
3. Identify educational requirements leading to position.		
4. Identify at least three institutions where this preparation can be obtained.		
5. Identify the time required to reach his/her goal.		
6. Be able to provide an accurate range of salary potential.		
7. Be able to describe his/her personal wants and needs relative to a projected life style.		
8. Be able to contrast the above life style related to his/her career area.		
9. Identify five additional careers related to the one he/she is exploring.		

Specific Objectives

Career: Law - General
Practice

Supplement No. 1 - Field
Visitations

The career menu established for this contract will deal with field experiences in a variety of environments related to the practice of law as well as assignment on a one-to-one basis with an attorney in private practice.

For the field experiences all "law" interns will travel as a group.

Field Experiences

A. The Judicial Process - The students will meet with key persons in each of the departments outlined and be given an overview of the functioning of these departments as relates to: (1) its place within the system; (2) the individual practitioner.

   1. The Court System - The student will meet with judges of the: Justice Court, Surrogate Court, and the Supreme Court (State and Federal). The student will be able to: (a) describe the role of the judge in each setting; (b) list the responsibilities of each Court (jurisdiction); (c) describe the appeals process.

   2. The Office of the District Attorney.

   3. The Office of the Public Defender.

   4. The Probation Department.

   5. The Sheriff's Department (BCI-Bureau of Criminal Investigation).

B. The Role of Government - Local (town and/or village); County; State; Federal.

The student will be able to describe the functioning of government and its relationship to law.

Specific Objectives

Career: Law - General Practice

Supplement No. 2 - Follow-Up Activities

The student will:

1. Observe an actual closing.
2. Observe the drafting of contracts, e.g., real estate, arbitration, leasing, zoning.
    a. Define a confidentiality agreement between two corporations.
    b. Prepare a brief (e.g., respondent's brief).
    c. Write up a cross examination.
3. Identify important elements of Surrogate practice:
    a. Probating a will
    b. Handling an estate
    c. Accountings of a trust
4. Observe and identify legal practice relating to real estate, e.g., contracts, mortgages, deeds, subpeona.
5. Identify litigation files:
    a. Perform simple filing functions.
    b. Identify the use of these files.
    c. Know how the files are set up and the system used to track documents.
6. Describe the importance of the researching process, e.g., identify cases used in proving an opinion.
    a. Resource identification--where to find what you need
    b. Simply identification of "case book" method
    c. Actually research a problem.
7. Attend a session of the Justice Court (evening), e.g., drunken driving violations, burglary, negligence cases (car accidents).
    a. Be able to contrast negligence cases and criminal cases.
8. Attend session at the Court House (town) and describe:
    a. Pre-trial examination
    b. Trial in progress
    c. Choosing of a jury by two trial lawyers; contrast the procedure and its relationship to our form of government.
9. Identify office procedures in a legal practice, e.g., filing, answering the telephone.
    a. Become familiar with forms: contracts, mortgages, summonses.

CAREER
INTERNSHIP
CONTRACT

An agreement of common purpose between

____
The Intern

and

____
The Mentor

PHYSICAL EDUCATION TEACHER
Career Interest

Student's Address ____________________________________ Telephone No. ______

School __________________________ Counselor _________________ Tel. No. ______

Mentor's Address ____ Tel. No. ______

Time Schedule: ____

Statement of Purpose

To provide an opportunity for secondary school students in the County to explore a wide variety of professional and technical career options in the "real world of work."

The one-to-one partnership herein outlines between the individual student (the Intern) and the volunteer adult (the Mentor), has been arranged toward the accomplishment of that purpose.

GENERAL OBJECTIVES

The Intern will:

1. Be able to write a job description in a minimum of two paragraphs.
2. Identify educational requirements leading to position.
3. Identify at least three institutions where this preparation can be obtained.
4. Identify the time required to reach his/her goal.
5. Be able to provide an accurate range of salary potential.
6. Be able to state (or write) at least five major responsibilities and/or functions of the job.
7. Be able to describe his/her personal wants and needs relative to a projected life style.
8. Be able to contrast the above life style related to her/his career area.
9. Be able to assess (verbally or in writing) his/her own growth in such areas as "yourself, relationship with Mentor, and career choice," as a result of his/her experiences.
10. Identify five additional careers related to the one he/she is exploring.

Specific Objectives

Career: Teacher
Instructor, Physical
Education

The "career menu" established for this contract will involve six visits between student and mentor. These visits are to take place three mornings and three afternoons, in order for the student to be able to explore the different activities occurring at these times.

A. The student will be able to observe students being instructed in physical education activities such as: softball, soccer, badminton. As a result of this observation, the student will be able to:

   1. Explain the importance of the teacher having a knowledge of sports techniques (e.g., the proper stance while holding a bat).
   2. Explain how the teacher uses that knowledge as it relates to his students' physical capabilities.

B. The student will be able to observe the coach organizing, leading, instructing, and refereeing outdoor activities such as baseball.

   The student will attend two afternoon baseball games and describe the role of the coach as relates to:

   1. Team activity and having the players work together as a unit.
   2. Instructing the players in strategy and manipulation of players.
   3. Enforcement of training rules (e.g., no alcoholic drinking or smoking).

C. The student will observe Intramural activities during after school activities and be able to:

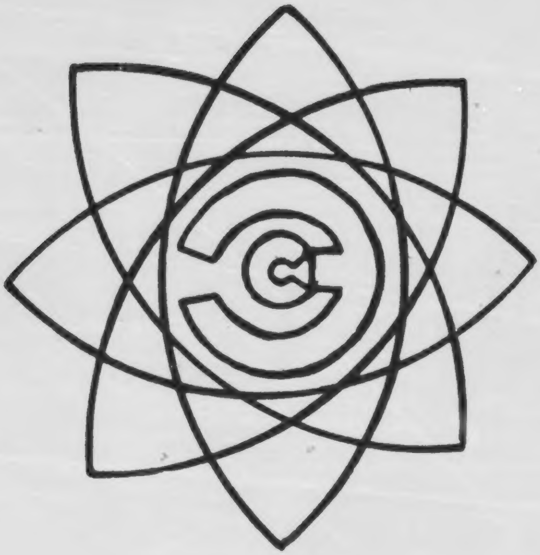
   1. Describe the students' attitudes at the end of a school day.
   2. Contrast the unstructured setting of after school activities and the structured setting of class instruction during the school day.

      For example: After School Activities--Voluntary
      Classroom Activities -- Required

D. The student will be able to list state requirements as relates to physical education, e.g., uniform, attendance.

UTILIZING COMMUNITY RESOURCES

SAMPLE CAREER INTERNSHIP LOG



____
Last Name First Name

School ______________________________

Semester ______________________ Date __________

Mentor ______________________________

CAREER INTERNSHIP PROGRAM

TIME SHEET

Name ____________________ Hr. ________________ School __________

Community Placement ________________ Mentor ____________________

Date	Time In	Time Out	Total Time	Signature

CAREER INTERNSHIP PROGRAM

LOG KEEPING SUGGESTIONS

In order to clarify the purpose and use of the Log we have asked you to keep, I have written some fictitious reactions and observations in each of the three categories listed in the log--yourself, your mentor, your career choice.

The important thing to remember is that keeping the Log is very much like keeping a diary. It is a way of helping you focus in on all the experiences you will be having. The guide questions listed under each category are just that--a guide. They aren't meant to lock you in to specific answers to those questions.

I hope the following examples will help:

Yourself

"I've realized that I might not have the smarts to be an aeronautical engineer, but I discovered a related career that doesn't require as much education and training. I could be an aircraft engine mechanic."

"I wasn't sure I could stand the sight of blood; I was afraid I would be squeamish. Now that I spent time in the emergency room, I know I'll be O.K.--it really didn't bother me."

Mentor

"I think the two guys I'm working with are great. But, I imagine they don't get home until late every night. I wonder if that's the life style I want."

"My mentor really treats me as an equal and doesn't make me feel like I'm getting in the way."

"My mentor is O.K., but he really is so busy and I wish I could spend more time with him."

Career Choice

"I didn't realize that so much of law work is routine and dull. I guess my only knowledge of a lawyer's work came from watching 'Petrocelli' on TV."

"I've always liked being around lots of people. I know working in a restaurant will sure fill that need. If I were the owner, I'd have to put in some pretty long hours, but I wouldn't mind because I'd be glad to be the boss."

Yourself

How are you growing in terms of: (a) exercising initiative, self-direction; (b) feeling self-satisfaction; (c) feeling confidence in your new relationships (with your Mentor and others you meet at work); (d) understanding a little better what demands are made upon people in the world of work; (e) your feelings about being out in the "adult" world of work.

Your Career Choice

How is your internship affecting your perception of your particular career choice(s)?

1. Is it what you expected?
2. Are you interested in pursuing this career?
3. How would you evaluate this career in terms of your own needs, likes, dislikes?
4. What affect is your personal relationship with your Mentor having upon your career choice?
5. Are you becoming more knowledgeable in your field of interest?

Your Relationship with Your Mentor

1. How do you feel your personal relationship is developing?
2. How do you feel your ability to communicate with your Mentor is changing?
3. Are you developing a person-to-person kind of closeness or are you staying within the bounds of student and adult?

UTILIZING COMMUNITY RESOURCES

SAMPLE ACTIVITY - VEHICLE DAY*

Concrete
RED CROSS
FRUIT & VEGETABLES
Circus
BEEP BEEP
Summer Cruise
Cakes
U.S.
TELEPHONE
LUMBER

TEACHER PLANNING GUIDE

Community involvement is a key ingredient in helping to communicate career education concepts to children. It is also a key ingredient in helping the citizens of a given area understand the beneficial relationships that can exist between the school and the community through the vehicle of career education.

The community, no matter how small it is, no matter what its main industry happens to be, no matter whether it is a rural hamlet or a bustling suburb...involving students in learning adventures which take place at varying job-sites extends the walls of the classroom in valuable life-oriented experiences. Work-place activities can give students career education experiences not available between the covers of an encyclopedia, a research report, or an occupational pamphlet. When children can visualize careers in action, they gain a realistic idea about what the world of work is all about, and gain occupational awareness.

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*This Handout developed by Ms. Patricia L. Duffy, Director, Project BICEP, Barnstable Public Schools and reproduced with her permission.

One way to add career education emphasis to instruction is to invite people from the work community into the classroom, and have them talk and demonstrate their work roles. This type of involvement requires certain clearly defined strategies, some of which are the following:

1. Coordinate your resource person's visitation with existing instructional goals and curricula.

2. Thoroughly prepare your guests for their visitation.

3. Evaluate the contributions made by your resource persons.

A more detailed explanation of these strategies appears elsewhere in this guide under "The Utilization of Community Resources."

The main emphasis on this planning guide, however, is an adaption of a resource person coming into the classroom to share his/her job role. It involves not only the person but also his/her work vehicle. Imagine if you will the parking lot of your elementary school. On a given day, one could see a host of vehicles parked there, and all members of that school population visiting them and learning first-hand how they fulfill their responsibilities to their job and their community. Imagine further that the planning for this vehicle day has involved local employers and employees working with classroom teachers and student committees in the execution of this vehicle day through existing curriculum offerings. Let's take Math for instance. Mileage and cost of fuel to run the vehicle is certainly a numerical process. Reading involves the research involved in the vehicle function and the occupation for which the vehicle is designed. Language arts requires that all resource people be contacted either by telephone (which involves the skills of carrying on an intelligent verbal request for involvement), or that letter-writing is necessary for the invitations to participants. Social studies covers the aspect of motor travel and the merits of this mode of transportation within a given area. Art affords youngsters to design booths outside each vehicle with appropriate information applicable to the purpose of each vehicle, as well as posters depicting the vehicle in operation. And so it goes...on and on.

In order to successfully plan such a worthwhile learning experience for the students of your school, the following basic considerations are necessary for the coordinator(s) of the activity:

1. Clearly define your goals for such an activity.

2. Have written plans for submission to your principal involving all aspects of the day's operation.

3. Have clearance from your building principal to undertake such an activity.

4. Ascertain how many students will be involved. Will only the primary children visit the vehicles? Will the activity be designed for intermediate youngsters? Will it be an activity for the entire school?

5. What time schedule have you designed for the activity?

6. Have you taken into consideration recess breaks, lunch-time and bus schedules when planning visitations?

7. Where will the activity take place? A map of the parking area would be very useful in designing your vehicle day. Planning for actual space requirements is vital to the success of the day, as well as to how many vehicles you can accommodate in a given area.

8. How many resource people will be involved? Will the vehicle only have one operator? Will the vehicle have an additional person on board that day? This might prove to be a very valuable suggestion, as one participant could show half the group the outside of the vehicle, while the other half could go "aboard."

9. Will you solicit the aid of your parent advisory council, teacher aides, and parent volunteers to help you in the mechanics of the day?

10. Have you given sufficient lead/planning time so that all aspects of the day have been considered?

11. Do you have the support of your principal and staff to undertake such an activity?

Next, one should design a list of the specific tasks to be accomplished prior to vehicle day. These tasks can be accomplished by the teacher/coordinator, a team of teachers representing varying grade levels within the building, a team of teachers and the principal, a teacher(s) coordinator and parent volunteers. However, it is imperative that all these tasks be addressed in the planning stage:

1. Develop a schedule for the day's activities. A sample schedule is included further in this planning guide for your consideration.

2. Choose the employers and employees who will be asked to participate. This choice can come from a questionnaire to the teachers, to the students, or it can flow naturally from classroom lessons on transportation/community helpers/and/or community living. The list could also be compiled from a community resource file if your school has developed such an aid for career education-related activities.

3. Telephone the prospective participants and explain in detail the execution of the day as you see it. Try to have some preparation on paper so that after your initial telephone call you can follow it up with a written confirmation.

4. Visit the employer and employee's place of business, and make personal contact, if time and necessity make this a more productive way to involve the community resource person. The same holds true here as above. Follow up a personal visit with a written confirmation.

5. Have students write personal invitations to participants.

6. Have an insert letter which affords a reply, so that a written commitment is made for final planning.

7. Invite the local press and provide local newspaper coverage with an announcement of the activity.

8. Have students design posters for each vehicle for desk stations outside of each vehicle.

9. Design pre and post-tests and activities/games to accompany each vehicle.

10. Design a teacher and community resource follow-up questionnaire to ascertain the effectiveness of the activity. Ask both teachers and community participants if there was anything you could have done to make their visit easier. Ask them if they felt they made a valuable contribution to the children's learning experience. Also evaluate your own efforts. Did the activity help your students? In what ways? Were the participants comfortable with student audiences? Were the number of students involved a manageable number? Did you plan enough time at the vehicle? Did the students ask worthwhile questions of the vehicle operator? Did they relate the vehicle in their daily life experiences to the total value that it plays in the work life of their community?

11. Map off the area, paying particular attention to length of vehicle, entrance and exit routes, children walk-paths or vehicle entrance and exit routes. Also map out the outside desk stations or welcoming "booths" to the vehicle.

12. Make provisions for videotaping the Vehicle Day. Also take lots of pictures, both prints and slides, for follow-up sharing of the activity.

13. Make provisions for complimentary luncheon to host participants.

14. Telephone the participants a day before as a reminder. This can be done by the students, by the school secretary, by parent volunteers or by the teacher(s) coordinator(s).

15. Plan for alternate date in case of inclement weather conditions. Set up telephone chain of calls, if such a cancellation should arise.

16. Plan for police supervision, if location of school has heavy traffic flow.

17. Thank you letters, collages, posters, or other appropriate symbols of appreciation should be designed by students following Vehicle Day. Open houses at various schools, or morning coffee hours could provide an opportunity to show slides, pictures, and/or a videotape of the activity at its conclusion. Participants from the community could be invited to come to these presentations.

18. In preparing the insert letter, or written letter of confirmation to the community participants, the following things should be included:

    a. A map of the parking area.

    b. Directions to the school site.

    c. Schedule, including grade visitations and approximate amount of time each grade level will spend at each vehicle.

    d. Listing of typical questions that might be asked by students. This list can be derived from classroom lessons prior to Vehicle Day.

    e. Note that coffee and refreshments will be served throughout the day.

    f. Notation making sure that participants realize that they are in integral part of the program, not just their vehicle. This could be stressed with the students in making appropriate question-listings, and interview forms used for talking with community workers could be utilized for this purpose.

19. Relative to the newspaper article or release, the following should be included:

    a. Description of the activity, along with goals of the program.

    b. Day, time, location and, depending upon coverage, a partial listing of vehicles and their workers who have already consented to participate.

    c. Invitation for the community to attend.

20. Relative to the personal contact or telephone contact for prospective participants, the following should be included in your letter or confirmation or accompanying planning sheet:

    a. Planned date, alternative date, time of day, length of activity.

b. Purpose of activity.

c. Location of activity.

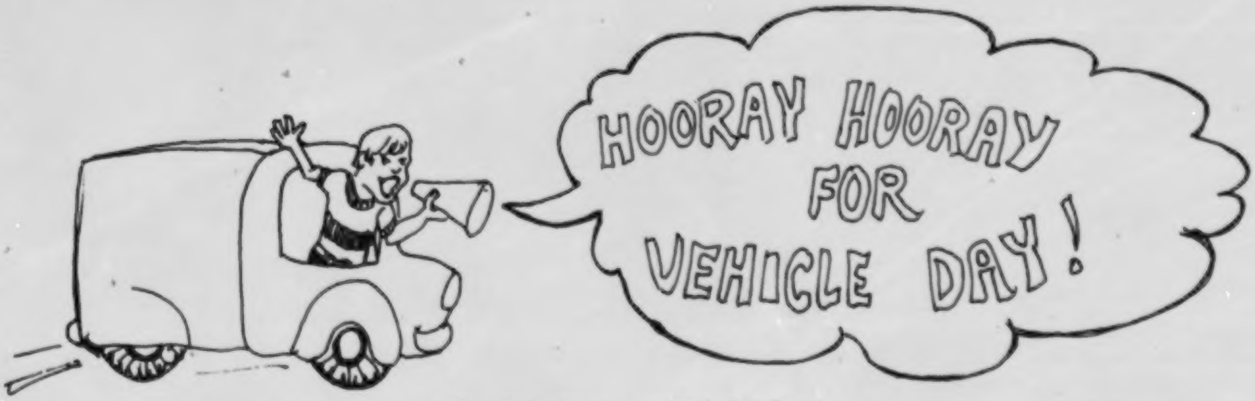
d. Luncheon arrangements.

e. Suggestion of two vehicle participants.

f. Time that vehicle must be lined up.

Involving staff colleagues, and support personnel at your individual school can be a positive force in assuring that your Vehicle Day will be a success. When people are involved in the planning and execution of an activity such as this, there is a sense of "ownership," which spontaneously creates a climate for sharing. Perhaps the teachers at your level will be involved in the planning. Perhaps the idea will be presented by a teacher(s) coordinator(s) at a faculty meeting. Perhaps the idea will be born through an advisory council meeting. Perhaps Vehicle Day will be a first attempt at community involvement. Perhaps sign-up sheets for participation may be placed in your local library, in the effort to solicit community support. Whatever the method, involving staff, principal, and support personnel will serve to effectively coordinate your efforts.

A sign-up sheet such as the sample one on the following page might be used to ascertain interest, as well as give other teachers a "handle" on the idea.


HOORAY HOORAY FOR VEHICLE DAY!

Coming Soon: Vehicle Day!

WHAT?

Like a career fair, only it's all outdoors! Emphasis will be on the vehicle and the person who operates it, as well as that person's place in the world of work.

WHEN?

October 19th (morning) with October 20th as an alternate date in case of inclement weather.

WHERE?

In the parking lot adjacent to the school.

WHO?

Parking room only for up to 12 local resource people and their working vehicles. We can use some of our local citizens who have visited the school before as resource people, plus a trip to the community being "on the lookout" for different types of vehicles by a committee of students, and/or a committee of teachers could easily be arranged.

If you have any suggestions for names, please let us know.

What can you do to help with this vehicle venture? Read the attached list of fun tasks, check the one(s) you are crazy about, sign your name in blood or Tabasco Sauce and return it to me by Monday of next week.

Career Awareness Coordinating Teacher

Many Thanks!!

HOORAY, HOORAY FOR VEHICLE DAY!

Fun Tasks for Our Vehicle Venture

______ Hosts and hostesses are needed for each vehicle. It there a particular grade level who would like to coordinate this activity?

______ Parent volunteers can be very useful in helping students move from one vehicle to another. You might wish to coordinate a group of parents, assigning one to each vehicle. Invite them to your planning session so they know exactly what their responsibilities will be.

______ Student letters inviting participants. A good activity for language arts. The participants will already have been contacted by the Career Awareness Coordinating Teacher.

______ Thank you letters, collages, posters from students to participants. Perhaps you would like to head up a committee of students from each grade to work on this project.

______ Coordination of one student desk with appropriate literature and game activities at each station. Jumbled word puzzles appropriate to the vehicle's function. Literature about the vehicle's role in the community obtained from the company or operator him/herself.

______ Posters to decorate each station, naturally made by the students. Perhaps this could be coordinated with your art classes.

______ Light refreshments for morning "coffee break," either made by parent volunteers or by students themselves. Servers naturally would be students.

______ Responsibility for luncheon for participants. If each vehicle has two "on board," one could have lunch at one time, and then alternate. This would involve making arrangements with cafeteria and/or advisory council for food and seating arrangements for guests.

______ Anything else you can think of?

______ A photography buff could take pictures of the occasion for follow-up activities.

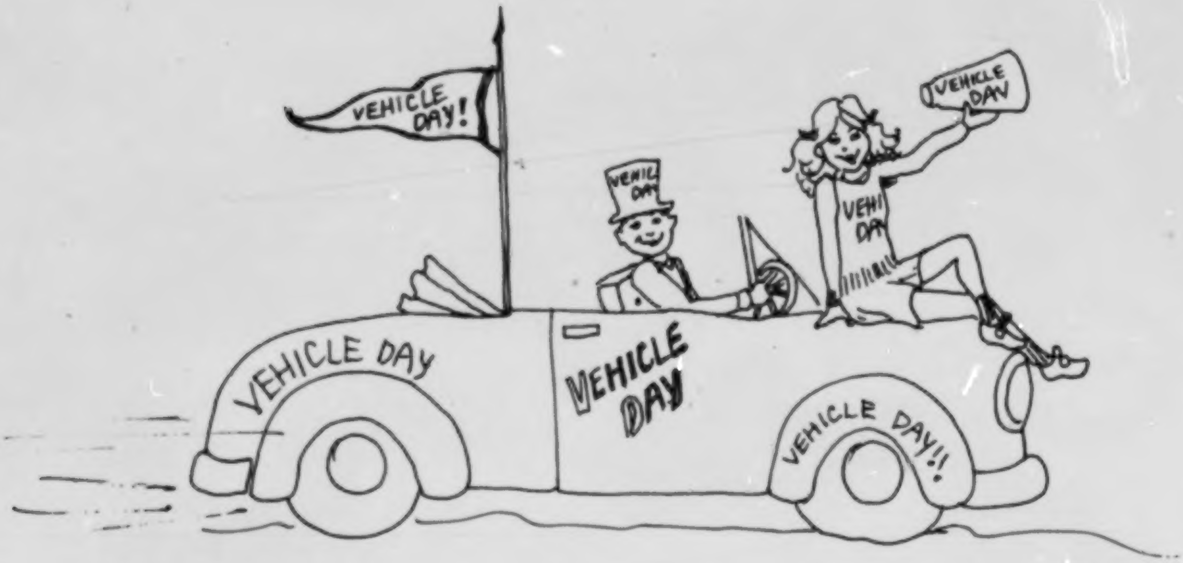
______ A mini-course could be designed prior to Vehicle Day on building model vehicles.

Suggestions are most welcome!

Thanks!

Suggested vehicles to assembly for an "at school" Vehicle Day, or for visitations in your community. These suggestions are for kinds of vehicles you may find on driving tours of your community. You may wish to arrange to have them park in your school parking lot with presentors from the company to explain usage and features of the vehicle or you may wish students to visit these vehicle work-site locations on field trips. For every vehicle listed below, a teacher could probably discover three others when they look around their own communities:

Ambulance
Antique car
Armored truck
Bakery/grocery delivery truck
Cape Cod Cablevision installation truck
Fire engine
Flower vehicle delivery
Fork lift
Glass delivery vehicle
Good humor truck
Hearse
Meals on wheels
Military vehicle
Mobile home
Moving van
New England Telephone Repair truck
Oil delivery truck
Police squad car
Recreation vehicle or camper
Rescue squad
School bus
Snow plow
Street cleaner and sweeper
Taxi
TV news car
Towing service vehicle
Town of Barnstable Highway Dept.
Tractor
Transit mixer truck (cement)
Transportation bus line vehicle
Tree service vehicle
Tree service vehicle
U-Haul vehicle
United Parcel Service
U. S. Postal Service truck



SAMPLE VEHICLE DAY SCHEDULE

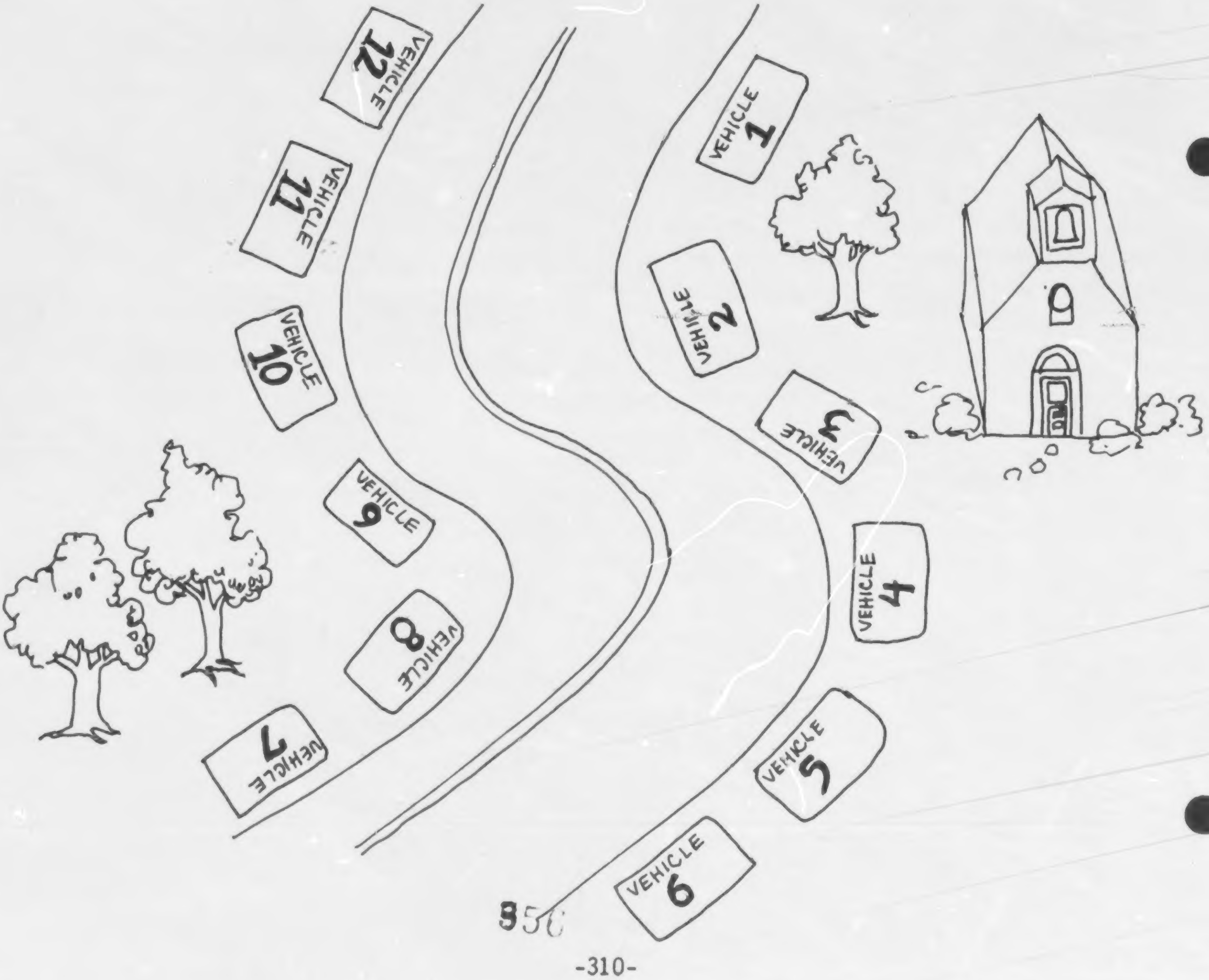
Note: This schedule is only meant to be a sample to aid those planning a Vehicle Day. It accommodates twelve (12) vehicles, and they are placed in the parking lot #1 through #6 as primary visitation sites, whole #7 through #12 are intermediate vehicle classifications. However, variations could be made depending upon locale and planners. The same applies for the time schedule. Twenty-minute intervals are used here, but these could be half-hour or, in some cases, 45-minute allocations. This schedule is based on a building with levels K-5, with two sections of each level.

8:30-9:30 a.m.	Set up displays at vehicle stations
9:45 a.m.	Arrival of vehicles - student host/hostesses to man stations with assistance of parent volunteer/teacher aide
10:00-10:20 a.m.	K^a visits Vehicle 1 K^b visits Vehicle 2 1^a visits Vehicle 3 1^b visits Vehicle 4 2^a visits Vehicle 5 2^b visits Vehicle 6
10:00-10:20 a.m.	3^a visits Vehicle 7 3^b visits Vehicle 8 4^a visits Vehicle 9 4^b visits Vehicle 10 5^a visits Vehicle 11 5^b visits Vehicle 12
10:20-10:40 a.m.	K^a visits Vehicle 2 K^b visits Vehicle 3 1^a visits Vehicle 4 1^b visits Vehicle 5 2^a visits Vehicle 6 2^b visits Vehicle 1
10:20-10:40 a.m.	3^a visits Vehicle 8 3^b visits Vehicle 9 4^a visits Vehicle 10 4^b visits Vehicle 11 5^a visits Vehicle 12 5^b visits Vehicle 7
10:40-11:00 a.m.	K^a visits Vehicle 3 K^b visits Vehicle 4 1^a visits Vehicle 5 1^b visits Vehicle 6 2^a visits Vehicle 1 2^b visits Vehicle 2

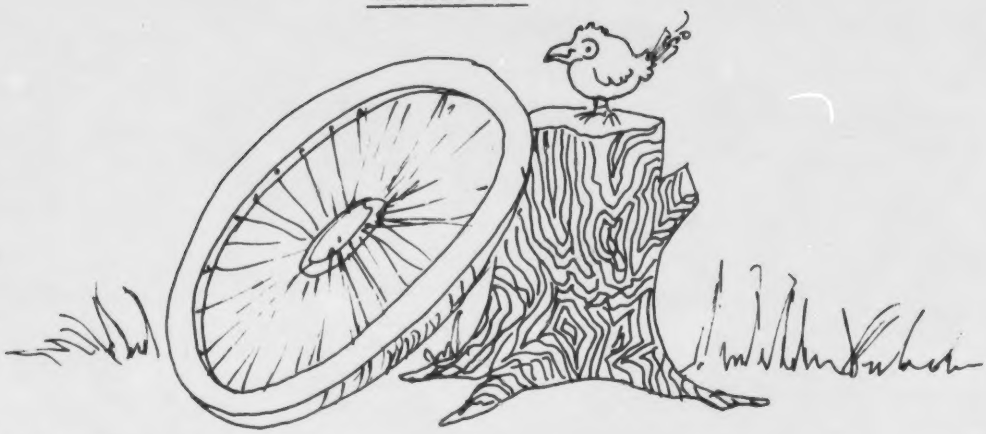
10:40-11:00 a.m.	3^a visits Vehicle 9 3^b visits Vehicle 10 4^a visits Vehicle 11 4^b visits Vehicle 12 5^a visits Vehicle 7 5^b visits Vehicle 8
11:00-11:20 a.m.	Same as above
11:20-11:40 a.m.	Same as above
11:40-12:00 p.m.	Same as above

Luncheon to be served

The superscript letters denote both class sections of a particular grade level. Although only a portion of the schedule is shown here, it is functional, since it rotates with little confusion, moving from one mode of transportation to another.


VEHICLE 12
VEHICLE 11
VEHICLE 10
VEHICLE 9
VEHICLE 8
VEHICLE 7
VEHICLE 1
VEHICLE 2
VEHICLE 3
VEHICLE 4
VEHICLE 5
VEHICLE 6

VEHICLE DAY



How many wheels do these vehicles have?

Ladder Truck ______ ______

Dump Truck ______ ______

Rescue Rig ______ ______

Street Sweeper ______ ______

Ambulance ______ ______

Tractor ______ ______

Telephone Repair Truck ______ ______

Good Humor Wagon ______ ______

Car-Call-A-Ride ______ ______

Rescue Squad ______ ______

Oil Truck ______ ______

Automobile Trailer Carrier ______ ______

VEHICLE DAY

Before you go out to visit the vehicles, fill out as much of this form as possible. When you return from your "vehicle tour," try to add additional information that you learned by visiting the vehicles. Use as many pages as you need.

VEHICLE NAME	VEHICLE FUNCTION	RELATED OCCUPATION
Example: Ambulance	Carries emergency equipment and takes sick or injured people to the hospital.	Health

VEHICLE DAY

Choose six of the vehicles that you saw on your vehicle tour, and draw them.

VEHICLE VENTURE

If you wish to take a ride around your community prior to having a vehicle day at your school as a motivating device, the following activity sheet might prove beneficial in helping students look more carefully at motor transportation.

Name: ____________________

Time of Day: ____________________

Traffic: ____________________

Weather: ____________________

Type of Vehicle	No. of Passengers	Firm or Business	Comments
Ambulance			
Park Maintenance Equipment			
Armored Truck			
Bakery/Grocery Delivery Truck			

Fill out as much information as possible while on tour. If you notice the firm name, follow up with a telephone interview to ask questions about the vehicle and its associated career.

CHAPTER IX

PREPARING CAREER EDUCATION INSTRUCTIONAL UNITS

This chapter represents a unit of instruction that should be divided into two sessions, for approximately a four-hour time period. Chapter V of this text represents sessions five and six, devoted to developing infusion activities. This chapter, and the two sessions it represents, follows very much the same pattern except that it is concerned with the development of an instructional unit. The resource materials include four sample instructional units, an assessment form for reviewing these sample units, and a guideline sheet for the development of new instructional units.

The instructional pattern for this double session is modeled from Chapter V, for developing infusion activities. That is, if you use the low-structure treatment, divide the students into small groups and provide each group with one instructional unit to review. Distribute and discuss the "instructional unit assessment form" for this process, which specifies some of the criteria to use in that review. After each group has reviewed its unit, have the groups exchange units until each group has examined at least three instructional units and applied the assessment form to each. At this point re-establish the groups into the entire class, and discuss the strengths and weaknesses of the instructional units as perceived by each group. Emerging from this process will be the guidelines that should be followed in the development of new instructional units.

At this point, the prepared guideline sheet should be distributed to the class, and compared to the guidelines just developed by the group. These two lists should then be merged into one comprehensive set of guidelines for use in designing career awareness instructional units.

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This new "master set of guidelines" should then be used as the class once again forms small groups to design and write one career education unit per group.

As a general approach to scheduling this session, it is recommended that the first hour (or hour and a half) of the first session be used for the purpose of reviewing units, using the instructional unit assessment form. The first session would then be concluded with the process of deriving the initial set of guidelines from the class. It is essential that these guidelines be recorded and preserved for the next session. The following session can then be started by reviewing the guidelines developed previously, comparing them to the ones provided in this manual, and developing a comprehensive list containing the best of both sets. This should leave approximately an hour (or an hour and a half) to allow each group to develop one new instructional unit. The final half hour should be saved for the groups to merge and share their results with each other.

A similar process should be employed if a high-structure program is preferred, with the following variations. Duplicate sufficient copies of the instructional units so that each member of the class will have a personal copy of each unit. Distribute them to the class, one at a time. Have the class as a whole review each unit separately, under the coordination and direction of the instructor. Identify the components of each unit, and specify the strengths and weaknesses of each unit. The instructor should control this process, and record this information on the chalkboard as it is provided by the class members. When the review process for one unit is completed, proceed to the next. As additional strengths, weaknesses, or components are identified, they too should be recorded on the chalkboard. After the class has reviewed the four instructional units as an entire group, you will have created a comprehensive list of components, strengths, and weaknesses.

The instructional unit assessment form should now be distributed to the class, and compared to the strengths and weaknesses developed by the entire class. The guideline form should then be distributed and subjected to a similar process. It is important at this point to involve the entire group in re-examining their guidelines, reviewing the guidelines provided, and developing a master set of guidelines for future use.

Contrary to the low-structure process, the next step in this instructional procedure will be for the entire class to work as a whole in developing one instructional unit. The first step will be for the class to come to mutual agreement regarding the topic and grade level. As the instructor, you should then lead a discussion of the potential activities that could be included within that instructional unit. Build these one upon the next, leading toward a culminating experience, so that you have ten activities identified, or as many activities as you have class members.

The class must now develop a common format to use for each activity and then have each class member write one activity. (The format should relate closely to the work regarding infusion activities in previous sessions.) The result of this total class effort should be one fairly well developed instructional unit for the entire class to review. If the review is positive, this newly developed unit should be reproduced so that every class member will have a copy. Since the entire class is working on one instructional unit, the high-structure group should develop a much more refined unit than the low-structure group. The low-structure group will have developed the outline for an instructional unit for each of its small groups, but with none completed.

As a major homework assignment for the entire staff development program, it would be appropriate to ask each member of the class to develop one complete instructional unit. This should be submitted and evaluated using the criteria developed in the final guideline sheet developed by the entire class.

In summary, this lesson is divided into three major sections. The first section consists of reviewing and analyzing several instructional units. This differs from Chapter V in which the participants actually completed a number of infusion activities. In this double session they review and carefully analyze each of several units. This is followed by the second activity devoted to the development of comprehensive guidelines for instructional units. The final section of the double lesson consists of the production of one or more instructional units. This should provide the class with a comprehensive background and understanding of the design and development of instructional units. It should provide also the skills needed to successfully complete the homework assignment with the confidence that each participant is able to develop further instructional units for use in his/her classroom setting.

SESSIONS TEN AND ELEVEN
DEVELOPING AN INSTRUCTIONAL UNIT FOR CAREER EDUCATION

OBJECTIVES:

1. The students will analyze instructional units with infused career education activities provided by the instructor.
2. The students will develop guidelines for an instructional unit with infused career education concepts.
3. The students will develop instructional units with infused career education for their classroom settings.

HIGH-STRUCTURE GUIDELINES

1. Distribute copies of one of the instructional unit handouts to the class. Conduct a class review of the instructional unit. Record data from students on chalkboard under the categories of components - strengths - weaknesses. Record all student input. Allow for full class discussion.
2. Repeat this process with the instructional units II and VI. Develop one cumulative list of components, strengths, and weaknesses.
3. Distribute the "Instructional Unit Assessment Form." Compare the statements on the chalkboard to this form.
4. Distribute the "Guidelines" form. Compare these statements to those on the chalkboard. Combine this data to develop one master list of guidelines to use in constructing instructional units.

LOW-STRUCTURE GUIDELINES

1. Divide the class into three teams. Give each team a different career education instructional unit from the handouts provided. Ask each team to study the entire unit, and identify the subcomponents of the unit. Have each team evaluate each unit using the "Instructional Unit Assessment Form." Then have the groups exchange units until each group has reviewed and analyzed all three instructional units.
2. Have the groups report their findings. Teacher should conduct a general discussion of their findings.
3. Reformulate the class into three new groups, with a different mix of members. Ask each group to develop a set of guidelines for infusing career education instructional units. Record the results of each group on the chalkboard.
4. Distribute the "Guidelines" handout. Ask each group to review the guidelines handout and develop a "composite guidelines form" which incorporates this information with the data on the chalkboard.

SESSIONS TEN AND ELEVEN (Continued)

HIGH-STRUCTURE GUIDELINES	LOW-STRUCTURE GUIDELINES
5. Work with the entire class to select a topic and culminating goal for an instructional unit. Then ask each class member to write one activity for this unit. When they are completed, have each student present his/her activity to the class, and ask the class to assess whether it meets the guideline statements and should be included in the unit.	5. Have each group report out its results. Put these on the chalkboard. Working with the entire class, develop consensus for one master guidelines form.
6. Review the culminating product of this effort with the entire class.	6. Using this master guideline, ask each group to develop the outline and activities for one career education instructional unit.
	7. Have each group report its results back to the class for feedback.

RESOURCES:
1. Handout - "Instructional Unit Assessment Form"
2. Handout - "Guidelines for Infusing Career Education Into Instructional Units"
3. Handout - "Sample Instructional Unit I - Weather"
4. Handout - "Sample Instructional Unit II - Transportation"
5. Handout - "Sample Instructional Unit III - The Neighborhood Process"
6. Handout - "Sample Instructional Unit IV - The Rise of American Business"

ASSIGNMENT: Design an instructional unit for your classroom setting. Prepare an outline of the instructional activities you would include in your unit. Develop these activities in accordance with the guidelines developed by the class.

Note: This may be presented as the major assignment for this course.

DEVELOPING AN INSTRUCTIONAL UNIT FOR CAREER EDUCATION

SESSIONS TEN AND ELEVEN - CONTENT OUTLINE

1. Analyzing a career education instructional unit
    a. Components
    b. Strengths
    c. Weaknesses
2. Assessing career education instructional units
    a. Broad concept or theme
    b. Length
    c. Components of each activity
    d. Elements interwoven
    e. Culminating experience
    f. Particular features
3. Guidelines for infusing career education into instructional units
    a. Broad concept or theme
    b. Length
    c. Objectives
    d. Culminating experience
    e. Experiential
    f. Infusion
    g. Goals accomplished
    h. Mapping activities to objectives
    i. Evaluation plan

RESOURCE MATERIALS

INSTRUCTIONAL UNIT ASSESSMENT FORM

		Yes	No
1.	Does the unit address a broad concept or theme?	___	___
	If so, what is it? ______________________		
2.	What is the length of the unit?		
	In time (number of days, or hours) _________		
	In number of lessons or activities _________		
3.	Does each lesson or activity contain:	**Yes**	**No**
	a clearly defined objective?	___	___
	relationship to the broad concept?	___	___
	a career education orientation?	___	___
	explicit activities?	___	___
	resources?	___	___
	an evaluation component?	___	___
4.	Are one or more career education elements woven throughout the unit?	**Yes** ___	**No** ___
	If yes, which ones? ______________________ ____		
5.	Does the unit contain a culminating experience that is progressively developed through a number of activities?	**Yes** ___	**No** ___
	If yes, what is it? ______________________ ____		
6.	Are there any other particular features of this unit, either positive or negative?	**Yes** ___	**No** ___
	If yes, describe them ______________________ ____ ____		

GUIDELINES FOR INFUSING CAREER EDUCATION INTO INSTRUCTIONAL UNITS

1. The unit should address a broad concept or theme that develops throughout the unit.

2. The unit should be from 2 to 6 weeks in length.

3. The unit should consist of a series of related educational objectives, from which a number of activities will be developed.

4. The unit should have a culminating experience which is achieved progressively through the completion of a number of activities.

5. The unit should have a number of experiential activities.

6. Each lesson of the unit need not have a career education activity, but career education should be infused where it fits naturally.

7. A number of career education elements should be infused through various activities in the unit.

8. Every unit should accomplish goals related to:

   - the instructional subject area or areas
   - career education

9. Activities should be mapped onto the educational objectives developed for the unit.

10. Every unit should have a plan for evaluating the effectiveness of the unit and student achievement of the objectives.

SAMPLE INSTRUCTIONAL UNIT I

WEATHER

Concepts

1. There are different instruments used by a meteorologist to measure specific weather conditions.

2. There are various elements which make up the term "weather" (e.g., precipitation, wind, and temperature).

3. Weather prediction is an important function of the meteorologist.

Behavioral Objectives

1. The student will be able to identify the following instruments and state their uses: thermometer, rain gauge, weather vane, anemometer.

2. The student will be able to give an approximate reading on the following instruments: thermometer, rain gauge, weather vane, anemometer.

3. The student will demonstrate an interest in building by volunteering to help build at least one of the following instruments: thermometer, rain gauge, weather vane, or anemometer.

4. During class discussion the student will state the three things that the scientist checks when she/he reports the weather: temperature of the air, movement of the air (wind) and the moisture in the air.

5. During class discussion the student will state that a meteorologist is a scientist, whose job is to study and predict the weather.

6. The student will be able to read a simple graph showing the date and temperature.

7. The student will be able to accurately describe the weather on a given day with respect to temperature, wind, and precipitation (example: today it is cool, windy, and cloudy).

8. The student will be able to explain during class discussion that water evaporates, forms clouds, condenses, and returns as some form of precipitation.

Activities

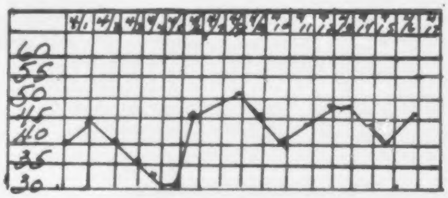
1. What is weather? Have students observe the kind of weather we are experiencing today. Is our weather like this every day? What other kinds of weather can we have? What is the weather like in the summer? fall? winter? spring? Write an experience story about different kinds of weather and seasonal weather changes.

2. Show film "HOW WEATHER HELPS US." Discuss the ways various climates help people and are necessary.

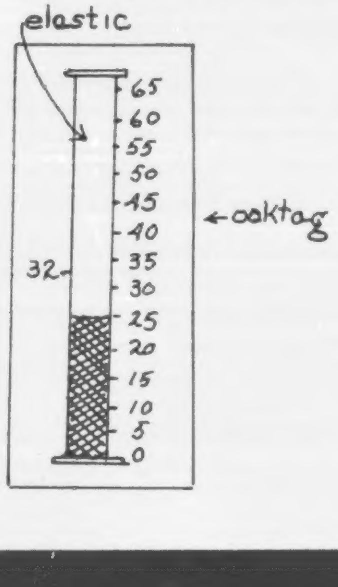
3. Ask students if any of them know the special name for a scientist who studies the weather. Introduce the word "meteorologist." Introduce puppet, Mr. Morris Meteorologist, who will tell the students about his work: "Hello boys and girls! My name is Mr. Morris Meteorologist and my job is to measure the weather. First of all, when you measure the weather, just what is it that you are measuring? The first thing I check is how the air feels -- is it hot or cold? Warm or chilly? Do any of you know what instrument I would use to check how cold or hot it is? Right! A thermometer. I use a thermometer like this to measure the temperature of the air (show picture of a thermometer). Now I want you to look out the window at the trees (flag, clothes on line, etc.), and tell me if you can see them moving. What makes them move? The wind. We cannot see the wind but we can feel it, and watch what it does. I measure the wind with two instruments. One is an anemometer (show picture). This tells me how hard the wind is blowing. Another instrument that tells me about the wind is this weather vane (show picture). The weather vane tells me from what direction the wind is blowing: north, south, east, or west. There is one more thing that I measure. How much water is in the air. What do I mean by 'water in the air?' (rain, sleet, snow, humidity). I measure the amount of water that comes out of the air by using a rain gauge (show picture). Now let's see if you remember. What are three things that I measure? (temperature of air, movement of air, moisture in the air)."

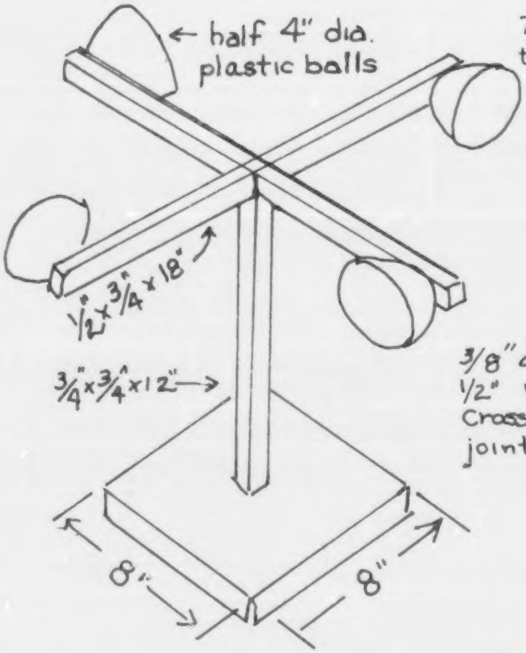
4. Show film "THERMOMETERS AND HOW THEY WORK." Let Mr. Morris Meteorologist lead a discussion on how thermometers work - heat makes mercury expand, etc.

5. Make a graph and keep a record of the temperature for 30 days. Each student will have a turn to be the meteorologist of the day and make the "official" temperature reading and mark it on the graph.

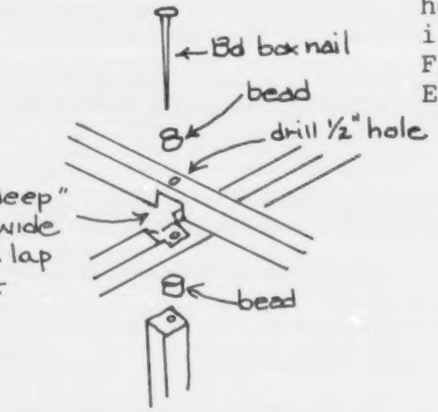


6. Each child makes a practice thermometer out of oaktag and elastic. Mark off the mock thermometer in degrees to resemble a real thermometer. Use 1/2" wide elastic for the mercury. Make a slit on the top and bottom of the thermometer and run the elastic through. Tie it in the back so that it can slide freely. Color half the mercury up and down to get different readings.



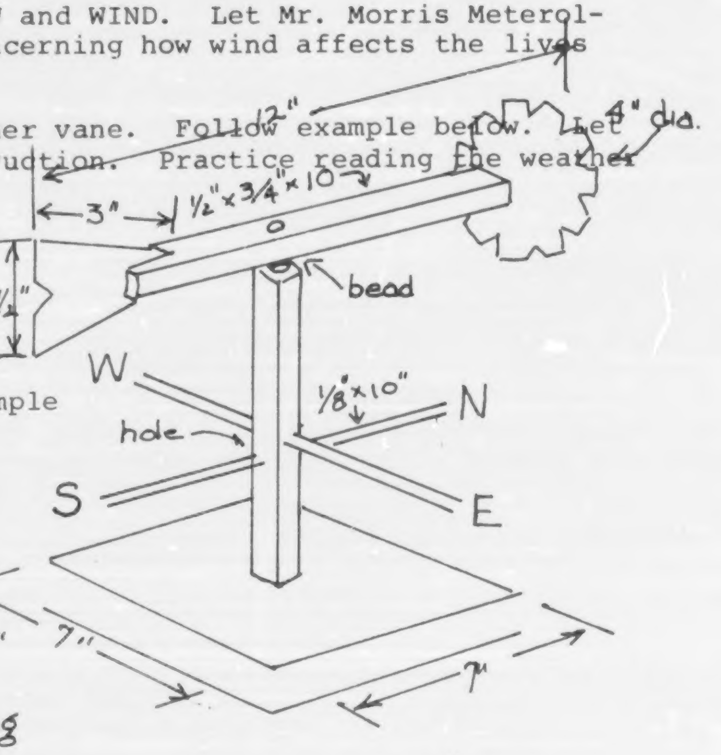

half 4" dia. plastic balls
1/2"x3/4"x18"
3/4"x3/4"x12"
8"
8"

7. Recall the instruments used to measure the wind. An anemeter measures how fast the wind is blowing. With children helping, construct a simple anemeter as explained at left. Use it to demonstrate how wind velocity is measured. From: TEACHING ELEMENTARY INDUSTRIAL ARTS. Miller and Boyd.

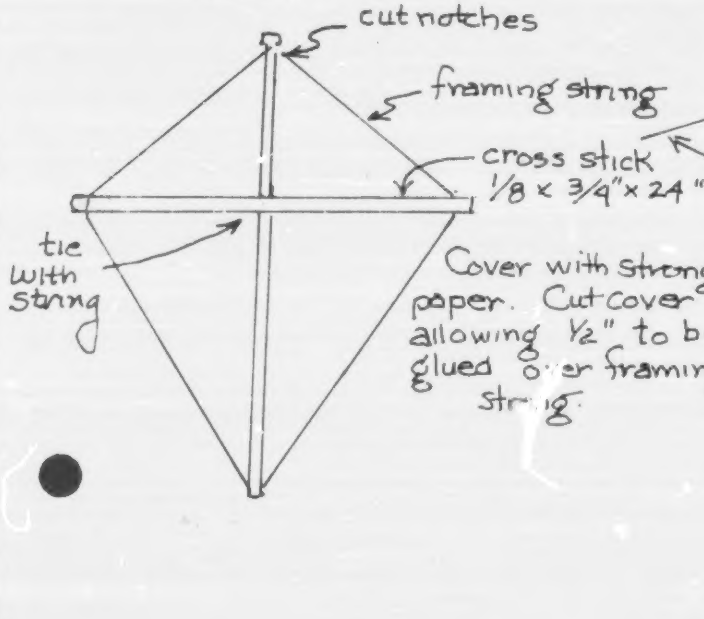

8d box nail
bead
drill 1/2" hole
3/8" deep"
1/2" wide
Cross lap
joint
bead

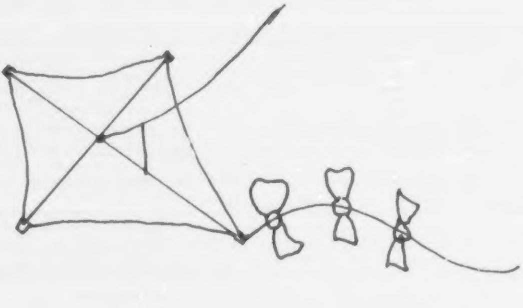
8. Show films BLOW WIND BLOW and WIND. Let Mr. Morris Meterologist lead the discussion concerning how wind affects the lives of the people and the land.

9. Construct a simple weather vane. Follow example below. Let children assist in the construction. Practice reading the weather vane daily.
Record the wind direction.
From: TEACHING INDUSTRIAL ARTS. Miller and Boyd.

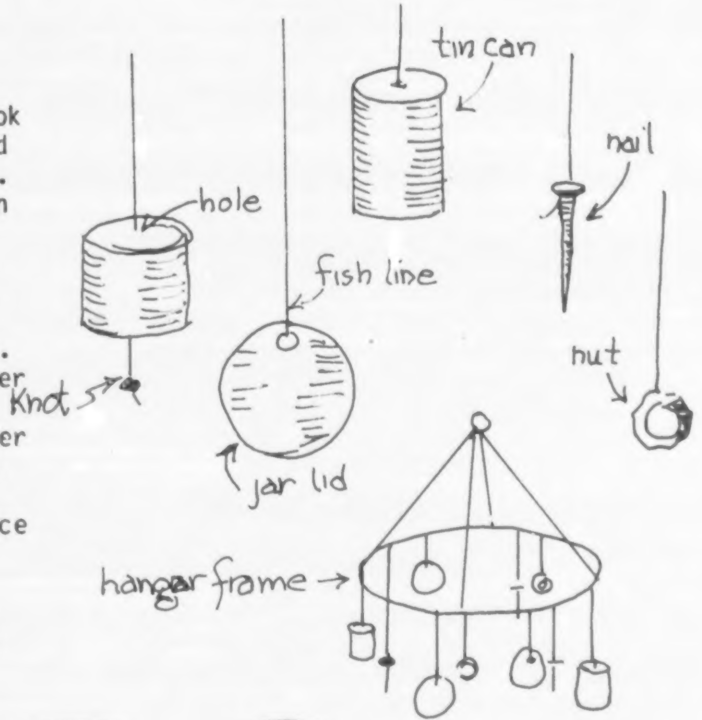

12"
4" dia.
3"
1/2"x3/4"x10
2 1/2"
bead
W
N
1/8"x10"
hole
S
E
7"
7"

10. How the wind can work for us and help us have fun. Make kites following the example below.

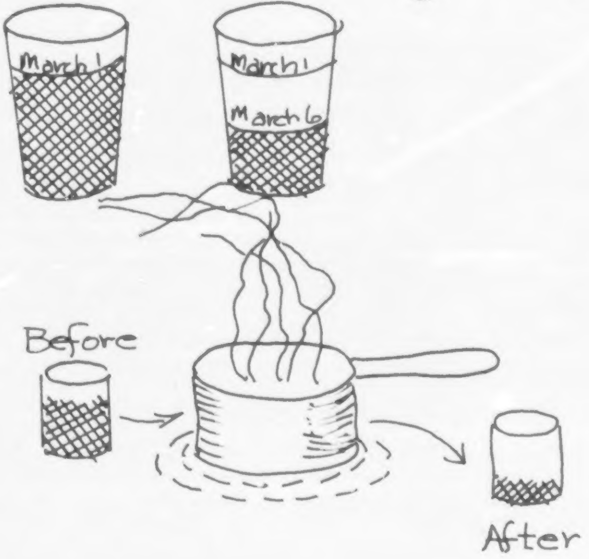

cut notches
framing string
cross stick
1/8 x 3/4"x 24"
tie with string
Cover with strong paper. Cut cover allowing 1/2" to be glued over framing string.



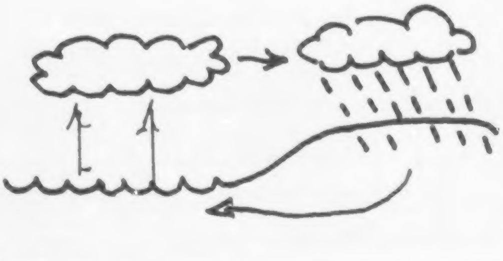
11. Make wind chimes. Cut hook part off a hanger and bend hanger into a round shape. Use six or eight ounce tin cans painted with spray enamels, silver, or gold. Also use jar lids, nails, nuts, any metal objects that can easily be strung. Suspend objects from hanger base with fishline. Use rope or cord to make hanger to suspend chimes. Place outside where wind will blow the chimes and produce sound.



12. Experiment to prove that there is water (moisture) in the air: (a) fill a plastic glass with water and mark the water level. Place glass where no one will spill it. One week later mark the water level again. Discover that the water level is lower. Ask Mr. Morris Meteorologist to lead discussion on where the water went. Water evaporated. Introduce word "evaporation." (b) Measure 1/2 cup of water into small pan. Heat water on hot plate. Students will observe the water in the form of steam leaving the pan and going into the air. Let the water boil for a few minutes, then measure it again. What happened to the water we put in the pan?



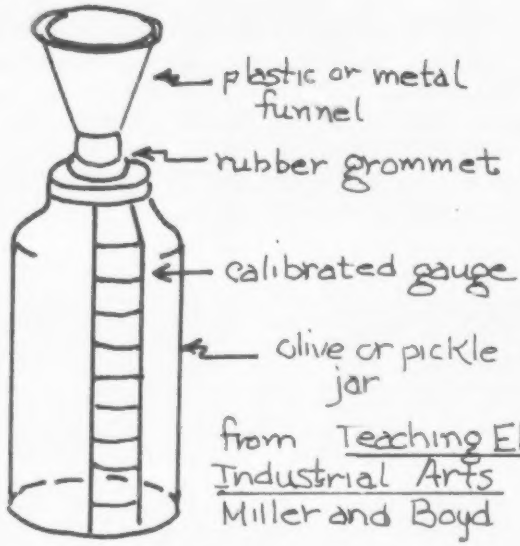
13. Show film "WHAT MAKES RAIN." Let Mr. Morris Metehrologist lead discussion on film. Draw diagram explaining evaporation--condensation cycle on board and discuss it with students.



14. What affect does temperature have on precipitation? Have Mr. Morris Meteorologist discuss different kinds of precipitation (rain, sleet, hail, snow) and the temperature conditions necessary for each. Show film "SNOWFLAKES." Investigate snow if it is available. Have students collect snow from outside and examine it under magnifying glasses. Melt some snow, measuring the snow first, and the water left after melting. Why is there less water than show? Also inspect the melted snow to determine how clean it was.

15. Alternate or additional films that may be shown and discussed are: "RAIN," "RAINSHOWER," and "THE CLOUDS ABOVE."

16. Make a rain gauge as shown in sample at right. Compare your rainfall measurement to that of the nearest weather station. Then calibrate your gauge to correspond. Record rainfall for one month.



from Teaching Elements Industrial Arts by Miller and Boyd

17. Using weather instruments constructed by the students, record the temperature, wind direction, and precipitation for one month.

	2/1	2/2	2/3	2/4	2/5	2/8	2/9	2/10
temp.	41°	44°	50°	36°	32°	29°	41°	37°
W N E S direction	NW	W	SE	E	SE	SE	W	N
❄ 🌧 ☀ ☁	☀	☁	🌧	☁	❄	❄	☀	☀

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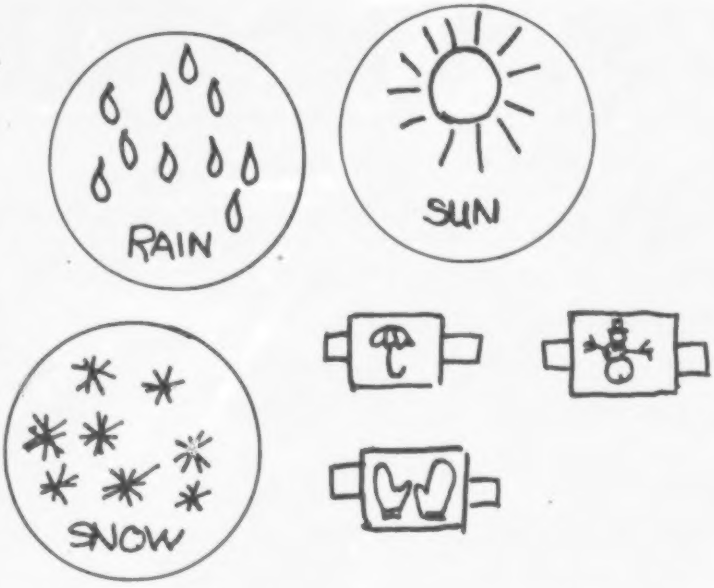
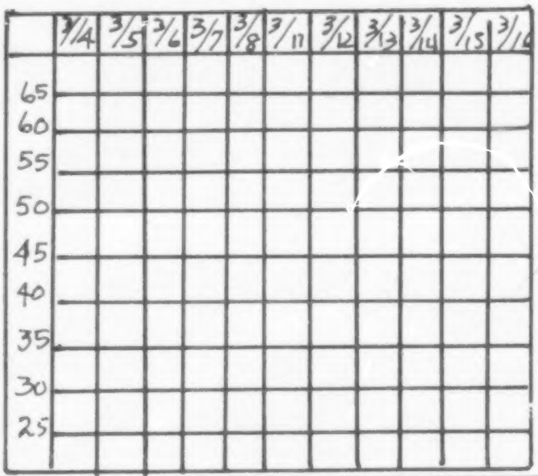
Learning Centers

1. "Weather Game." Out of oaktag, cut three circles with a 4" diameter. On one circle draw rain, on another snow, and on the third, sun. On 1" squares of oaktag draw small pictures, such as snowmen, umbrella, picnic lunch, to represent each kind of weather. Make several squares for each kind of weather. Glue these to spring clothespins. Student must clip the clothespin to the corresponding weather circle.

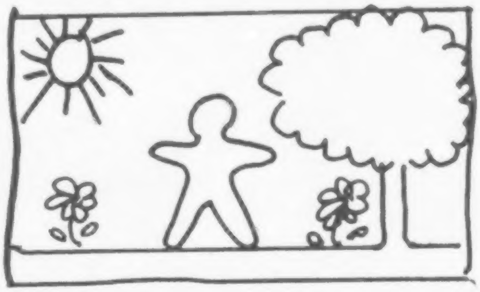


2. "Read the Graph." On a piece of oaktag draw a graph to record the temperature for thirty days. The graph should be like the one used in class. Fill in dates and temperatures on the graph. Provide student with a chart that is partially completed. She/he must then fill in the missing dates and temperatures.



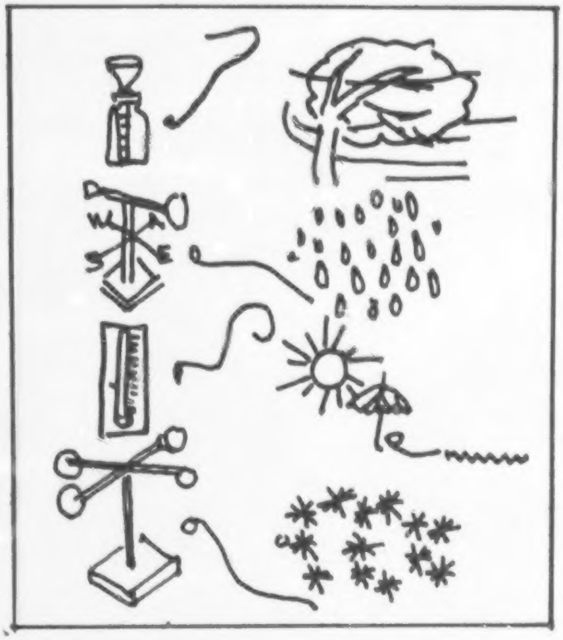
March 4		March 18	
		March 6	
	50°		37°
March 12			37°
	47°		45°
	47°		45°

3. "Dress Me." Use three 9" x 12" pieces of cardboard. Draw the same scene except that one is sunny, one rainy, and one snowy. In each picture cut out and paste on a flannel cutout figure of a child. Use felt to cut out appropriate clothing for each situation. The child must use the felt clothes to dress the figures appropriately for the weather in each picture.



Make two more of this same scene except have one illustrate a rainy day; the other a snowy day.

4. "Instrument Match." On a piece of cardboard or oaktag draw a thermometer, rain gauge, anemometer and weather vane along one side, and the weather they measure on the other side. Use yarn and brass paper fasteners to match the instrument with what it measures.



Evaluation

1. Most of the objectives in this unit can best be evaluated continuously as the student participates in class discussion activities and learning centers.

2. Test students using the following riddles:

   a. You can look at me to see how hard the wind is blowing. What am I?

   b. You look in me to see how much rain fell. What am I?

   c. You look at me to see how cold it is. What am I?

   d. I tell you from what direction the wind is blowing. What am I?

3. Observe the students to make sure that they can use the weather instruments correctly. Play a thermometer game. The students use their own individual thermometers. Let different students be the meteorologist who calls out temperatures for the other students to make on their thermometers.

Resources

Teacher's Books

Getting Started in the Classroom. (Technology for Children.) Division of Vocational Education, New Jersey State Department of Education

Miller, W. R. and Gardner, Boyd. Teaching Elementary Industrial Arts. South Holland, Illinois: The Goodheart-Willcox Company, Inc.

Swierkos, Marion L. and Morse, Catherine G. Industrial Arts for the Elementary Classroom. Peoria, Illinois: Charles A. Bennett Company, Inc.

Poems

Coatsworth, Elizabeth. "What Could be Lovelier Than to Hear." from: Bridled with Rainbows. Sara and John E. Brewton (Eds.). New York: MacMillan Company.

Cotten, Joseph S., Jr. "Rain Music." From: Bridled with Rainbows. Sara and John E. Brewton (Eds.). New York: MacMillan Company.

Fisher, Aileen. "Weather is Full of the Nicest Sounds." From: Arrow Book of Poetry. Ann McGovern (Ed.). New York: Scholastic Brook Services.

Hughes, Langston. "April Rain Song." From: Arrow Book of Poetry. Ann McGovern (Ed.). New York: Scholastic Book Services.

Justus, May. "Winds A-Blowing." From: Bridled with Rainbows. Sara and John E. Brewton (Eds.). New York: MacMillan Company.

Long, Elizabeth Ellen. "Rain Clouds." From: Bridled with Rainbows. Sara and John E. Brewton (Eds.). New York: MacMillan Company.

Merriam, Eve. "Summer Rain." From Arrow Book of Poetry. Ann McGovern (Ed.). New York: Scholastic Book Services.

Miller, Betty. "The Wind." From: Bridled with Rainbows. Sara and John E. Brewton (Eds.). New York: MacMillan Company.

Rossetti, Christina G. "Who Has Seen the Wind." From: Bridled with Rainbows. Sara and John E. Brewton (Eds.). New York: MacMillan Company

Tippett, James S. "Sleet Storm." From: Bridled with Rainbows. Sara and John E. Brewton (Eds.). New York: MacMillan Company.

Films

"BLOW WIND BLOW." (Coronet - 11 min. col.) Johnny learns that the wind can turn windmills, shake the trees and make his toy sailboat go. From this knowledge, he gains a background for understanding stories, poems, and songs about the wind.

"THE CLOUDS ABOVE." (Bailey - 9 min. col.) General science film shows the four main types of clouds and explains their significance. The absorption of water by air and the process of condensation are interestingly illustrated. How these processes are involved in the formation of clouds, and in the precipitation of rainfall is demonstrated in a simple animated sequence. The importance of clouds to various members of the community is portrayed.

"HOW WEATHER HELPS US." (Coronet - 11 min. col.) The child's attention is focused upon how rainy, snowy, windy, and sunny weather helps people, plants, and animals. The film reviews weather that accompanies the changing seasons.

"RAIN." (ACI - 8 min. col.) Enchanting songs, particularly created for this series of films, comprise the narrative for each picture, providing an ideal opportunity for young viewers to learn naturally through melody and repetition. During the course of each film, basic words to be taught appear on the screen frequently and are used in a variety of ways and situations.

"RAINSHOWER." (Churchill - 14-1/2 min. col.) The sights and sounds, beauty and rhythm of rain are experienced in the changing moods of a day when a rainshower comes to plants and animals on a farm, and to people at work in a community. The film offers a rich experience in looking and listening. Narration is used only for the introduction, the rest is natural sound.

"SNOWFLAKES." (Moody - 8 min. col.) Produced especially for lower elementary. Both the beauty and uses of snow are portrayed. The variety of ways in which snow provides recreation, the way it stores water for irrigation and the unique crystalline structure of each flake are all shown. The simple and concise narration is designed especially for younger students.

"THE SNOWY DAY." (Weston Woods - 6 min. col.) (Also available as filmstrips.) The silent wonder of a city snow and Peter's solitary delight in it as he slides down snow mountains and takes a snowball home in his pocket are told in exquisite collages that reflect the sparkling quality of snow and the contrasting warmth of home and family.

"THERMOMETERS AND HOW THEY WORK." (Encyclopedia Britannica Films-11 min. col.) Explores the three basic types of thermometers -- those with liquids, gases, and solids, showing by means of simple demonstration how each type works. Provides an understanding of the often difficult concept of materials expanding when heated, and contracting when cooled. Reveals many different uses of thermometers in various occupations, and emphasizes the importance of temperature and how it is measured.

"WHAT MAKES RAIN?" (McGraw-Hill - 10 min. b/w.) Introduces the young child to the concepts of evaporation and condensation as they apply to the water cycle.

"WIND." (ACI - 8 min. col.) Especially designed as reading initiative experience for preschool and primary grades. Using everyday environment and situations that have immediate identification and appeal, these films both encourage the development of language skills and teach actual words. Enchanting songs, particularly created for this series, comprise the narrative of each motion picture.

SAMPLE INSTRUCTIONAL UNIT II

TRANSPORTATION

Concepts

1. Various forms of transportation have encouraged the growth of societies by providing the transfer of goods, services, and ideas among communities.
2. There are many different modes of transportation.
3. Our sophisticated transportation system enables the rapid movement of people and goods over land, air, and water.
4. Transportation today is very different than transportation of earlier periods in history.

Behavioral Objectives

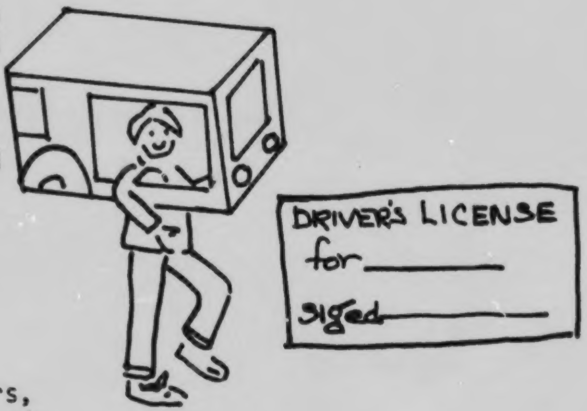
1. The student will be able to match a train, plane, ship, car, and truck to its appropriate medium of travel (train to track, car to road, etc.), and appropriate "home (train yard, garage, hangar, or dock).
2. The student will be able to explain at least two functions of each form of transportation (plane, car, train, boat, truck).
3. The student will be able to name at least two kinds of air transportation (helicopter, jet), land transportation (train, car), and water transportation (ship, sailboat, submarine).
4. Given a picture of a particular form of transportation, the student will be able to discern why it is mobile and explain its construction to fulfill special needs (plane wings, car wheels, train wheels, etc.).
5. Given a specific situation, the student will be able to tell what would be the best form of transportation to use and explain why.
6. The student will develop an awareness of the variety of jobs available in the area of transportation, and be able to name four of them.

Activities

1. Introduce unit on transportation with Sesame Street recording of song "Going for a Ride." Have students identify the different means of transportation and act them out as they sing along with the record.
2. Initiate class discussion about vehicles that move on the road (cars, trucks, buses, ambulances, police cars, fire engines).

Stimulate interest with such questions as: "How did you get to school today?" "How does your dad/mom get to work?" "How did our desks get to the school?" "How does the food get to the cafeteria?" Write experience story about why we need cars, trucks, and buses. Illustrate with student's art.

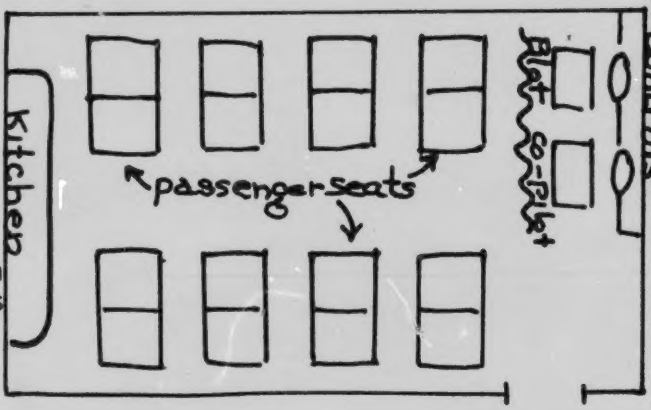
3. Construct car out of packing boxes. Cut out windows, and add parts such as doors, lights, steering wheel, license, etc. Set up a practice road with stop sign and traffic signal. Give student's "road test," and if they pass it, issue them a driver's license. How are these cars different from the real thing?



4. Investigate...what makes cars, trucks, buses, ambulances, and fire engines alike? (1) all have wheels; (2) all ride on the road; (3) all have engines and need gasoline. Discuss how cars are constructed. How many different parts are there to be put together? Discuss assembly line construction of cars, trucks, etc.

5. Present this problem: "You are going on a trip to ______________ (far away state or city), and you have to be there by tomorrow morning. What would be the fastest way to get to __________? (Airplane is the fastest and has most direct route - why?) Show film "AIRPLANES: A FIRST FILM." Discuss the different uses of airplanes shown in the film. Allow students who have flown to share their experiences.

6. Show film "AN AIRPLANE TRIP BY JET." Discuss the various occupations connected with airplane travel. Working on the airplane in maintenance and repair; at the airport; etc. Discuss the skills needed for the different jobs (do you need to read, write, etc.?) Role playing: Using student's chairs, set up a model airplane in the room. Let students take turns being pilots, stewardesses, and passengers. Stage a mock flight from take-off to landing. Stewardesses can serve a snack to the passengers during their flight.

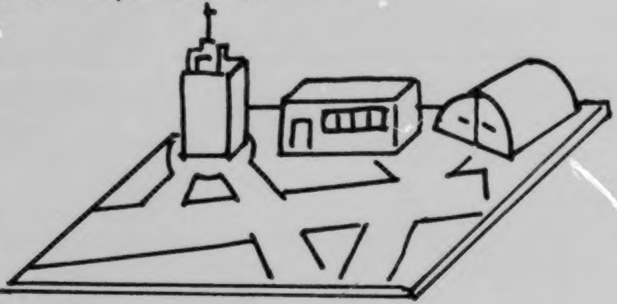


7. Show film "BILLY'S HELICOPTER RIDE." Discuss film. Note difference between airplane and helicopter. Differences in construction, size, feeling while flying, speed at which they travel.

8. Construct interviews in the room with students or teachers who have flown in planes or helicopters. Invite resource people to be interviewed on mock TV talk show. Have students prepare questions to ask their guests.

9. Take a trip to a nearby airport. Tour the airport, watch planes landing and taking off, and tour an airplane if possible.

10. Build a table-top model of an airport. Use cardboard base and build the main terminal, and control tower out of milk cartons, and hangars out of bent oak tag and cardboard. Use small toy planes to demonstrate how the airport works.

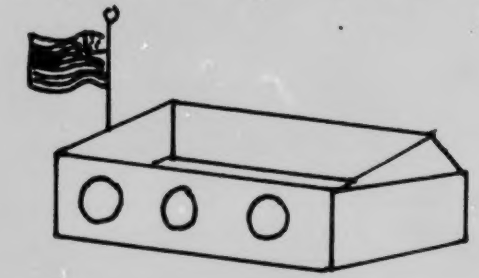


11. Present this problem: "You are going on a trip to France (point out on the map noting the Atlantic Ocean) - but you do not want to fly. How are you going to get there? What kind of boat? Why would it have to be a big boat? What is the big boat called? Let students share any boating experiences they have had.

12. Show film "SHIPS: A FIRST FILM." Discuss different functions of ships. What kinds of jobs are associated with sea travel? If possible, take students on a field trip where they can observe travel on a river. Have them keep a record (by drawing pictures) of the different kinds of boats they see. Write an experience story about the different boats, and illustrate it with student's art.

13. Have children work on a class project and bring in many different pictures of boats. Sort them into categories, and make large posters by mounting on oak tag.

14. Construct a boat large enough for the students to sit in. Use cardboard cartons and oak tag or tri-wall. Let student's paint boat with tempera. Read the story "Curious George Rides a Bike," by H. A. Rey. Let children make boats out of folded newspaper like Curious George did. Test them to see if they float.

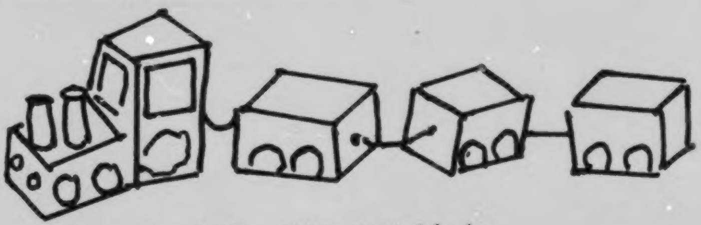


15. Ask students to think about transportation and see if they can discover something we haven't discussed yet. Discover trains. Show introductory film "TRAINS: A FIRST FILM." Discuss the two kinds of trains -- passenger and freight. Let student discuss their experiences riding on a train or waving at the engineer or man in the caboose.

16. Show film "THE FREIGHT TRAIN." Discuss types of goods transported by the freight train. Have each student draw at least two things he could send on a freight train.

17. Visit a train station and railroad yard. If you are in an area where it is possible, take a ride on a subway. Explain that it is really a small passenger train underground.

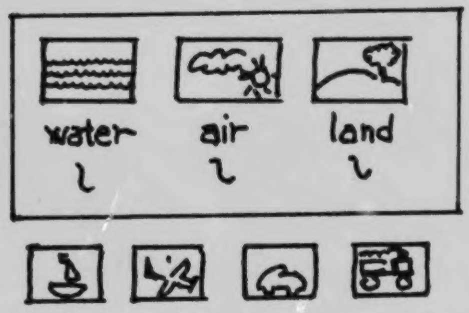
18. As a class project make a train using cardboard cartons. Hook the "cars" together with string. Cut out wheels, lights, smokestack, etc.



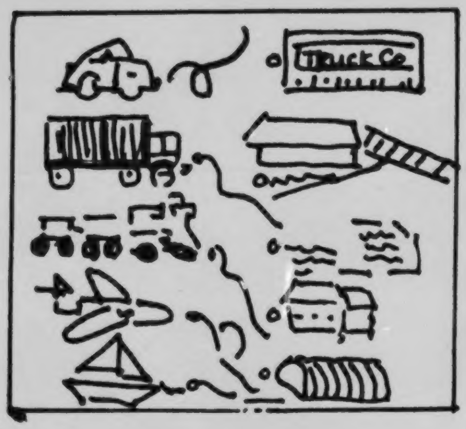
19. What am I? In a paper bag have pictures of the different kinds of transportation. Student reaches into bag and pulls out a picture. He does not let anyone see it. He must pretend he is whatever the picture indicates. Other students guess.

Learning Centers

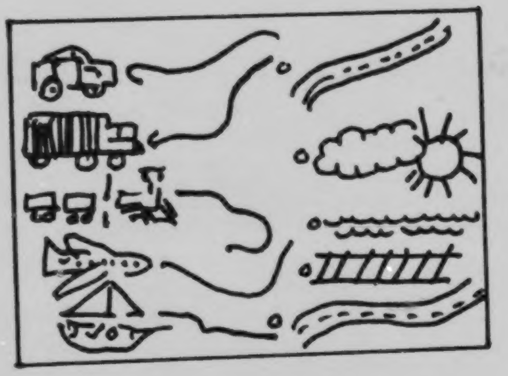
1. "Air, Land, and Sea." On a large sheet of oak tag draw and label water, air, and land as illustrated. Attach hook under each. On small oak tag cards draw the various modes of transportation you have discussed. Punch hole in the top of each card. Students will sort cards and match them to water, air, or land.



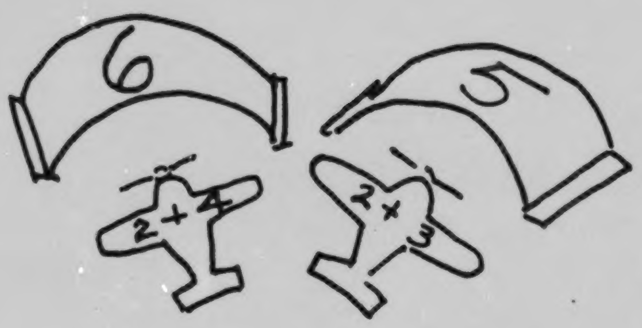
2. "Drive Home." On oak tag or cardboard, draw forms of transportation on each side with yarn affixed to each. On the other side draw railroad yard, garage, hangar, dock, and truck company garages. Affix a brass paper fastener beneath each. Student must match the form of transportation with its "home."



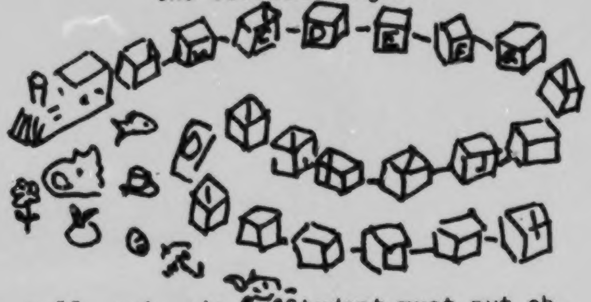
3. "Ride On." On oak tag or cardboard, draw form of transportation on one side with yarn affixed to each. On the other side draw pictures of what each would "ride on." Affix brass paper fasteners beneath each. Student must match the two columns.



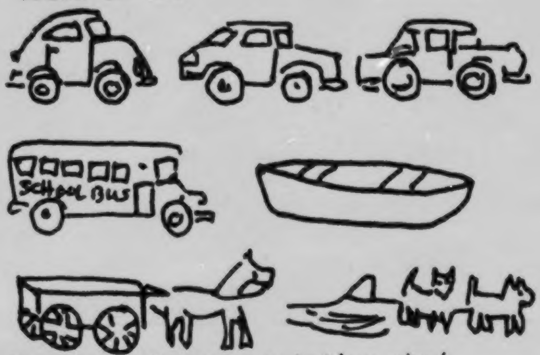
4. "Airplanes and Hangers." (From Workjobs, by Mary Baratta Lorton.) Make hangars by bending 8" x 10" piece of cardboard. Write numerals on top of each hangar. Make airplanes out of oak tag. Write a number fact across the wingspan of each airplane. Student must put the airplanes into the correct hangar.



5. "Alphabet Train." (From Workjobs, by Mary Baratta Lorton.) Use small milk cartons with their tops cut off as cars for the train. Hook together with yarn. On each car write a letter of the alphabet. Have objects that will match letters of the alphabet (apple, ball, cat, etc.) Student must put object into car that has the initial sound on it.



6. "Matching Game." Out of oak tag make and cut out the following forms of transportation: canoe, wagon and horse, sled and dogs, three cars and a bus. On 2" x 3" oak tag draw pictures of Cindy City, Carol Country, Sammy Suburb, Tommy Town, a pilgrim, an indian, and an eskimo. Student must use paper clips and clip the child to the form of transportation she/he uses in his/her community.

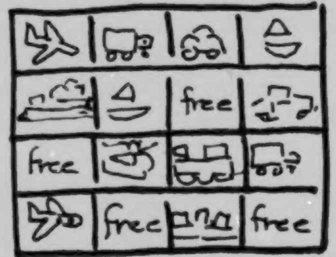


Evaluation

1. Written test. Matching: the student will draw lines from form of transportation to: (1) medium of travel; and (2) its appropriate "home."

2. Display a set of pictures (e.g., train, plane, car, truck, boat, helicopter). Ask different students to point out what it is that makes that vehicle different from the others, and able to perform in a different manner (airplane files because of wings).

3. "Travelers Bingo Game." Make up bingo cards with pictures of transportation on them. Describe different situations: "mother wants to go shopping," car. "We are moving to another city, how will our furniture get there?" - truck.



4. "What am I?" Riddles about transportation: (1) I can go very fast, but I must stay on my track. I have an engineer up front and a caboose at the end. Who am I? (2) I am little when I'm next to a jet. But I can do things a jet can't do. I can fly straight up into the air, and straight down again. Some people call me a "Whirly Bird." Who am I? (3) I can be yellow, or red, or green. In fact I come in every color, and a lot of different sizes too. Your family probably has something like me. I can take your dad/mom to work or shopping. Who am I? (4) I am very big. I can take people across the ocean and never touch the water. I am something like a big bird. Who am I? (5) If you are moving, you will need me. I help you every day by carrying food and other goods to stores so that you can buy them. I can also carry away your garbage or carry furniture. Who am I? (6) I can be very big or very small. Sometimes I have a sail. In some ways I am like a duck. I can take you across the ocean, or fishing in a pond. Who am I?

5. The other objectives listed at the beginning of this unit should be evaluated continuously as the student participates in class discussion, activities, and learning centers.

Resources

Children's Books

Gamatky, Hardie. Little Toot. B. P. Putnam's Sons, New York. (Also available as Weston Woods Filmstrip.)

Piper, Watty. The Little Engine That Could. New York: Platt and Munk Publishers.

Rey, H. A. Curious George Rides a Bike. New York: Scholastic Book Services.

Sootin, Laura. Let's Go to An Airport. G. P. Putnam's Sons, New York.

Teacher's Books

Lorton, Mary Baratta. Workjobs. Mento Park, California: Addison-Wesley Publishing Company.

Miller, W. R. and Gardner, Boyd. Teaching Elementary Industrial Arts. South Holland, Illinois: The Goodheart-Willcox Company, Inc.

Swierkos, Marion L. and Morse, Catherine G. Industrial Arts for the Elementary Classroom. Peoria, Illinois: Charles A. Bennett Company, Inc.

Poems

Frost, Frances. "Trains at Night," from Bridled with Rainbows. Sara and John E. Brewton (Eds.) New York: MacMillan Company.

Fyleman, Rose. "The Barge," and "The Boat." From Bridled with Rainbows. Sara and John Brewton (Eds.) New York: MacMillan Company.

Unknown Author. "The Railroad Cars are Coming." From Bridled with Rainbows. Sara and John E. Brewton (Eds.) New York: MacMillan Company.

Films

"AIRPLANES: A FIRST FILM." (Bailey Film Associates - 11 min. col.) Different kinds of planes designed for different uses are shown. The viewer has a close-up view of the main parts of an airplane, and information from which he can generalize about the common elements of several kinds of planes. She/he observes the work of a crew on a passenger plane, and the services offered passengers. Learns how a pilot stays on airways, and who helps to guide him/her.

"AN AIRPLANE TRIP BY JET." (Encyclopedia Britannica Films - 11 min. col.) Tells the story of a transcontinental jet flight showing personnel in the airport assisting passengers, while the ground flight crews service the plane. Offers views of a modern airport, jetliner equipment, and cabin facilities.

"BILLY'S HELICOPTER RIDE." (Coronet - 11 min. col.) Billy is surprised by a trip to the heliport, and a ride in a helicopter with his Uncle Joe. What Billy learns about helicopters, and what he sees during his flight, hovering over the countryside and city, will fascinate pupils, and provide a stimulus for reading and storytelling.

"THE FREIGHT TRAIN." (Encyclopedia Britannica - 11 min. col.) Film shows how freight trains are put together. Shows the people who manage the train. Tells some of the safety rules observed by an engineer, and the importance of freight trains in the nation's transportation system.

"THE LITTLE RED LIGHTHOUSE AND THE GREAT GRAY BRIDGE." (Weston Woods - 9 min. col.) A little Hudson River lighthouse fears it will no longer be needed because of the new bridge -- based on the book by Hildegarde Swift.

"SHIPS: A FIRST FILM." (Bailey Film Association - 10 min. col.) Ships are compared to show similarities and differences in large commercial vessels. The rules of the people who work aboard freighters, tankers, and passenger ships are defined, and viewers see what different types of freighters look like, inside and out. Diagrams clarify how space is used according to the function of the vessel.

"TRAINS: A FIRST FILM." (B. F. A. - 11 min. col.) There are two kinds of trains: passenger trains, and freight trains. Trains are usually pulled by diesel engines. Each kind of train has cars made for special purposes. The men who run a train have different kinds of jobs. In a railroad yard a train is prepared for its trip to the next city. Powerful engines are able to pull long trains. A train stays on its track because its wheels have flanges. Signals along the track tell the engineer when it is safe to go ahead.

SAMPLE INSTRUCTION UNIT III

THE NEIGHBORHOOD PROCESS

Introduction

Socrates: Come, then, let us create a city from the beginning, in our theory. Its real creator, as it appears, will be our needs.

Adimantus: Obviously.

Socrates: Now the first and chief of our needs is the provision of food for existence and life.

Adimantus: Assuredly.

Socrates: The second is housing, and the third is rainment and that sort of thing.

Adimantus: That is so.

Socrates: Tell me, then, said I, how our city will suffice for the provision of all these things. Will there not be a farmer for one, and a builder, and then again a weaver? And shall we add thereto a cobbler and some other purveyor for the needs of the body?

Adimantus: Certainly.

Socrates: The indispensible minimum of a city, then, would consist of four or five men. Again, would one man do better working at many tasks or one at one?

Adimantus: One at one.

Socrates: The result, then, is that more things are produced, and better and more easily when one man performs one task according to his nature, at the right moment, and at leisure from other occupations.

Adimantus: By all means.

(Republic II, 369c., d.)

As adults we often take for granted the "non-glamorous" occupations that create the quality of our daily lives. Everyone sees the lawyer, the legislator, the scientist, the doctor. And everyone knows, with almost a technical precision, the scope of these people's jobs. Even young children unhesitatingly speak of "retro-rocket affect in lunar gravity," and the latest cancer treatment using X-rays. But for most adults, as well as for most children, those occupations which are represented in the average neighborhood, such as corner grocery store proprietor, sanitation worker, gas meter man, and telephone installer become almost invisible. On the other hand, although it may be a mark of successful accomplishment in these occupations that they are so little noticed, there may be a significant value in analyzing the organizations which so smoothly flow in the current of the "neighborhood process."

The neighborhood, be it semi-rural or urban, can be understood as a social "eco-system," which exists and develops as a hierarchically integrated and interdependent series of systems, of which the "invisible occupations" are vital. Having the children take a closer look at what these occupations consist of, and the roles they play in maintaining the neighborhood is not intended only as a substantive topic, to add new information, but to aid the child in becoming aware of the mutuality and interrelatedness of a number of very different jobs, with his/her daily life.

Appropros of the initial quotation, one lead-in to the general curriculum unit on the neighborhood process might use the Socratic approach, and ask the children how they would go about creating a brand new neighborhood. Utilizing the normally expansive creativity of children, a semi-structured "creation" would combine the curriculum goals of occupation awareness with a self-actualized series of decision-making about roles, responsibilities and resources.

The following outline will present an array of so-called "neighborhood" occupations. It cannot pretend to be an exhaustive, or even comprehensive survey, but it is intended to allow a teacher to present a broad scope of "low-profile" jobs which each represent the public culmination of complex organizations.

The result, hopefully will be generally threefold:

1. Substantive awareness of some "alternative non-glamorous" occupations.
2. Self-perspective gained through a gradual perception of the whole system.
3. Development of analytic skills as the children appreciate the "ice-berg" structure of many occupations.

Objectives

1. Self-Awareness
    a. To give the students additional opportunities for developing self-expression by using creative potential.
    b. To provide opportunities for the pupils to develop their decision-making skills.
    c. To give the children more opportunities for working with others in group processing.

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d. To give the children additional opportunities for identifying self-characteristics in relation to the characteristics of workers in the neighborhood.

e. To increase students knowledge of their role in relation to the community.

f. To stimulate social interaction skills and cooperative attitudes.

g. To give the children the opportunity to work independently.

h. To develop communication skills in all areas.

i. To encourage and provide for a measure of personal success through individualized instruction.

2. Career Awareness

a. To make children more aware of the meaning of work and its relevance to themselves.

b. To present the world of work in a realistic fashion so that common stereotypes of occupations will be eliminated.

c. To stress the dignity of all work and the fact that every worker performs a useful function.

d. To explore the roles and work activities of neighborhood workers.

e. To stress that certain jobs require people working together.

f. To develop the idea that a variety of skills are required to function effectively in a job situation.

g. To help children become aware of the fact that people work for different reasons and they choose different jobs for a number of reasons.

h. To develop the idea that work can be rewarding in many ways.

i. To help children become aware of why they like or dislike certain occupations related to the unit.

3. Behavioral Objectives

Upon completion of the unit "A Neighborhood Process" the student will be able to:

a. Tell why the various neighborhood workers are needed.

b. Students will be able to describe orally, at least two specific duties of each of six neighborhood workers.

c. Given a set of 10 pictures of neighborhood workers in their working environments students will be able to identify at least 5 of them correctly.

d. Given a set of 10 tools, and 10 clothing items students will be able to match at least 6 of each to appropriate job within the neighborhood - e.g., ladder-fireman.

e. The students will be able to name 4 or more health and safety habits necessary for neighborhood workers.

f. Each student will have had the opportunity to play the role of at least 5 of the different neighborhood workers.

g. Students will be able to describe at least 5 items (e.g., streetlights, telephone poles, houses, etc.) found within the neighborhood.

h. The student will be able to read and define at least 75% of the vocabulary words introduced in the unit.

i. Through role-playing activities students will demonstrate their skills in counting money by making change from grocery, bakery, gas, and stamp sales with at least 75% accuracy in the transactions.

j. The students will be able to distinguish between pounds and ounces on a postage weight scale. They will demonstrate this knowledge by weighing various packages correct to the nearest pound and ounce.

4. Examples of Specific Behavioral Objectives

a. Policeman.

(1) Students will know how to use the phone and communicate with the operator in contacting policemen and firemen.

(2) Students will be able to identify at least 2 hand signals of traffic policemen.

(3) Students will describe the risks in this job.

b. Postman.

(1) Students will be able to tell you when their neighborhood mail is picked up and delivered.

(2) Students will be able to tell you the difference between air-mail, special delivery, and regular mail, and why one costs more than the other.

c. Fireman.

(1) Students will know where the nearest fire alarm box is.

(2) Students will be able to describe at least 3 tools of this trade and why they are necessary.

(Similarly, the following list of neighborhood occupations may be treated.)

Neighborhood Workers

Grocer
Policeman
Milkman
Garbage Man
Service Station Attendant
Baker
Paper Boy
Postman
Fireman
Gas Meter Man
Street Maintenance Crew
Telephone Repairman
Deliveryman

Materials

Bulletin Board Material
Construction Paper
Crayons and Paint
Saw
Boxes and Empty Cans
Styrofoam Meat Trays
Refrigerator Boxes
Poster Paper
Stamps (Use surplus trading stamps.)
Occupational Tools - Cash Register, Fireman's Boots, Axes, etc. (Toy Models)
Pictures
Paste and Scissors
Nails and Hammer
Wooden Crates
Milk Cartons
Play Money and Postage Meter Scale
Rulers
Filmstrip Projector and Films
Hats (occupational) and Clothing
Lightweight Canvas and Denim
Tapes

Concepts

1. The neighborhood is an ongoing "process," not a static collection of streets and houses. If one element changes, the entire neighborhood is changed.

2. There are expectancies which we all have about our neighborhoods, e.g., street lights and telephones operating, sanitation and street repair.

3. Although a neighborhood is composed of hundreds of different personalities, it has a single character - e.g., China Town, residential area, student community, Italian section.

4. It takes many people to run a neighborhood.

5. In addition to his regular duties of enforcing the law, a policeman may have to do such things as help lost children find their parents, give directions to people who do not know their way, aid sick people, and people who have been hurt, teach safety habits to school children, or any number of things.

6. Depending upon the assignment, a policeman may direct traffic, give traffic tickets to offenders, put parking tickets on overparked cars, or those cars parked where they should not be, look out for stolen cars, arrest people who are disturbing the peace, guard prisoners from angry mobs, investigate the scenes of crimes, check stores and homes for burglary attempts, apprehend criminals, guard public figures, keep crowds under control at parades and public events.

7. The "tools" of a policeman's trade may be handcuffs, badges, police clubs, belts and holsters, revolvers, and whistles. The policeman may use these items nearly every day in his work.

8. Many different kinds of transportation are used by policemen as they make their rounds. Some may ride motorcycles, cars, horses, while others use helicopters and boats. Some walk their beats every day. Some drive paddy wagons, which are used to carry large groups of people on their way to jail.

9. Firemen are important protectors of life and property. They use their skill and equipment to fight fires, and to prevent fires before they begin.

10. While firemen are on duty, they live at the station house for a twenty-four hour period or longer. They eat, sleep and relax at the station while waiting for the signal of a fire to come in. While they are at the station, they stay busy cleaning and repairing their equipment.

11. Firemen have to be specially trained to fight different kinds of fires, and they use many different types of equipment in their work.

12. Firemen's tools include boots, badges, helmets, nozzles, axes, hoses, gas masks, scaling ladders, asbestos clothes, nets, and waterproofs.

13. In addition to the duties of supervising the fire station, the Fire Chief visits schools, factories, and stores to instruct people in fire safety and procedures to follow in evacuation of buildings.

14. Many different kinds of trucks and automotive vehicles are used by fire departments. Some are pumper trucks, hook and ladder trucks, and aerial trucks to fight fires in tall buildings. Most of these have hoses, and some have large search lights to use at night fires.

15. Policemen and firemen work together in times of emergency to protect lives and property.

16. There are different types of grocery stores.

    a. Small neighborhood grocery - owned and operated by one person or family.

   b. The convenience store

   c. The supermarket

17. The milkman is only the culmination of a long process. (The tip of the "iceberg.")

18. The milkman's product is thoroughly regulated. It is tested several ways before it is bottled and delivered.

19. Some milkmen deliver milk directly to the home, others to the grocer.

20. The meter represents measurement of an important household commodity, gas. The actual expense is relatively small, e.g., an entire meal can be cooked for a family for only a few cents.

22. Garbage must be collected regularly in order to prevent disease.

23. Garbage men use trucks and special equipment to collect, compress, destroy, and to filter out useable "pieces."

24. Automobiles are complex items, and therefore repairmen need specialized training.

25. Roads would be impassable, due to seasonal effects, if not for constant repair by street maintenance crews

26. Regular postmen make the pickups at boxes and other collection points on the last part of their route back to the post office. During rush hours and at night, special postmen do this job.

27. The weather is an important consideration for many neighborhood workers.

Suggested Activities

1. Initial Activities

   a. Ask children how they would go about creating a neighborhood.

   b. Make a chart of the different workers, and discuss what they do, and why they are needed.

   c. Have children ask their parents what the job characteristics of these specific neighborhood workers are, e.g. - What does a gas meter man do? What does an automobile service attendant do?

   d. Discuss the various job characteristics the students come up with to help them grasp a realistic picture of this world of work.

   e. See the film - Neighborhood Workers (Encyclopedia Brittanica).

2. Research Activities

   a. Invite role models to class to discuss occupations and to answer any questions students might have. Consistent with consent of parents and safety precautions, perhaps some of the neighborhood workers would consent to having a child spend a day at work with them.

   b. Have children interview parents who hold jobs related to this unit or outside neighborhood workers, and ask them why they chose this line of work, and what they like and dislike about it. Have students report their findings to the class.

   c. Plan field trips throughout the neighborhood and have students make a mural of things they see people doing.

   d. Pretend the classroom is a neighborhood, and allow children to take turns in playing the roles of various neighborhood workers.

3. Correlating Activities

   a. Language Arts

      (1) Read stories (authored or written by students) related to the neighborhood or neighborhood workers.

      (2) Students can write riddles or poems depicting occupations studies.

      (3) Have each child select an occupation and express the occupation through pantomime.

      (4) Play a matching game where students have to match workers to tools or apparel of trade.

      (5) Make a picture dictionary of the new words introduced in the unit.

      (6) Practice questioning skills to use when resource persons visit, or a field trip is made.

      (7) Develop writing skills by having the students write letters of appreciation to visitors and resource persons.

      (8) Play "Who Am I" games with different children assuming different roles in the game to give oral clues to their identity. Also, "What Am I" games could use the same approach.

      (9) Discussion of students' impressions of different careers and have children write or tell what they might like to do and why.

b. Art

(1) Convert the classroom into a model neighborhood. Divide children into various committees responsible for making a grocery store, fire station, gas station, post office, bakery, etc.

Examples

1. Using refrigerator boxes or plywood, build and paint a post office to be set up in room. Build individual post office boxes out of cardboard boxes to receive mail for students. Label each box with student's name. Build a postman's small truck from cardboard boxes too. Paint it red, white, and blue like official post office vehicles. Make mailman's pouches out of denim or lightweight canvas to be used in role-playing.

2. To build a model grocery store use big boxes and crates for shelves. Bring in empty boxes and cans from home with labels still on them or make labels for the cans to "stock" the shelves. Bring in styrofoam meat trays for use in "meat department." Make produce from construction paper or cut pictures from magazines for use in the "produce department." Bring in empty milk cartons, etc., to stock dairy section. Each child can take turns being either a customer, or grocer.

(2) Use or make puppets from paper bags to use in dramatizing various workers.

(3) Draw or paint riddle pictures (can be done by showing person's typical work clothing in his working environment).

(4) Make scrapbooks of neighborhood workers including children's drawings and magazine cut-outs.

(5) Have children design their own bulletin board - "Our Neighborhood Workers."

(6) Construct occupational hats to facilitate and make role-playing more realistic.

c. Social Studies

(1) Discussion of students interdependence and interrelationship of community workers with each other.

(2) Have children discuss some of the neighborhoods they know and the kinds of people and workers involved. (Sesame Street)

(3) Let children relate personal experiences of shopping in a rocery store, visiting a post office, fire station, police station, speaking with a policeman, etc.

    (4) Help children plan a bulletin board advertising their "specials" for the grocery store or newspaper headlines and articles on neighborhood events - Fire on Mainstreet.

    (5) Discuss and illustrate with examples the necessity of working together in the neighborhood. Role-play different situations in which children cooperate to do jobs quickly an easily. Contrast this with situation showing the opposite behavior, and its affect on work relations and productivity.

d. Mathematics

    (1) Get a weight scale and practice weighing packages of different weights. Scale can be used for bakery, grocery store, and post office. Distinguish between ounces and pounds, and compute the costs of different items.

    (2) Learn to make change by using play money.

    (3) Use a ruler to measure and construct shelves for store, post office, etc.

e. Science

    (1) Discuss the weather and how it is an important factor for the mailman, policeman, fireman, and deliveryman to consider in their jobs. Talk about the kinds of clothes they would need to protect themselves when the weather is cold, wet, or snowy.

    (2) Discuss the good health and safety habits that neighborhood workers should have, particularly those that come into direct contact with the public. Talk about how important good food, rest, cleanliness, and safety are to people.

f. Music

    (1) Look for recorded music that might be appropriate for this unit - "Who Are the People In Your Neighborhood?" - Sesame Street.

Culminating Activities

1. Invite parents, other teachers, classes, and friends to view "Our Neighborhood."

2. Show the following films: Community Helpers Series, Carlton; Everyone Helps in a Community, by Churchill; Community Helpers (Set), Educational Reading Service.

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Children's References

Greene, Carla. I Want To Be Books: Fireman, Postman, Policeman, etc.

Torbert, Floyd. *Postmen the World Over*. New York: Hastings House, 1966.

Around the Neighborhood (Set), Continental Press, Inc.

Our Working World, Science Research Associates.

Miner, Irene. *The True Book of Our Post Office and Its Helpers*. USA: Children's Press, 1955.

Community Helpers Series, Albert Whitman and Company.

Community Workers, Franklin Watts, Inc.

Colonius, *At the Bakery*, Melmont.

Hoffman, *About Firemen*, Melmont

Miner, *Policemen and Firemen*, Children's Press.

Additional Sources

1. D.O.T.
2. Occupational Outlook Handbook
3. SRA Occupational Briefs

Teacher Aids

1. "Community Helpers" (display figures) Trend Enterprises T-821, Office Sales and Service Catalog 1971-72.
2. "Home and Community Helpers" (pictures and resource sheets) - Teaching Picture Sets, 07203, Office Sales and Service Catalog 1971-72.
3. *The Mailman and His Work*, *The Policeman and His Work*, *The Fireman and His Work* (tapes and transcriptions), 3M Company, Gordon Flesch Company.

SAMPLE INSTRUCTIONAL UNIT IV

THE RISE OF AMERICAN BUSINESS

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PREFACE

This teacher's guide was developed by county teachers for teachers. The material was developed with the infusion strategy in mind. That is, traditional units were selected and the approach to the unit was refocused in order to emphasize career education.

It is not our intention that these guides be a blueprint and that they be followed point for point. Rather, we feel that this material will provide a key resource from which the creative teacher might implement all kinds of unique teaching-learning situations. Each guide is uniquely designed to emphasize how career education relates to some phase of the subject matter. We do this to point up that there exist many diverse approaches to infusing career education into the existing curriculum. This end is accomplished through the use of a consistent format, so that teacher need not reinterpret a new format for each of the guides.

Particular mention should be made of those teachers who originally developed the premise for this guide.

Claire E. Armstrong - Clarkstown
Leah Dalto - Nyack
John J. Lima - Ranapo
Roy J. MacDonald - Clarkstown
Lenora E. McCabe - East Ramapo
Stuart Winnick - East Ramapo
Julius R. Young - East Ramapo

Acknowledgement should also be given to those teachers who rewrote and reinterpreted those guides into the present form presented here.

Judith Lewin - East Ramapo
Lawrence Pauline - Pearl River

THE RISE OF AMERICAN BUSINESS

Introduction

After the Civil War, the output of goods and services in the United States greatly increased. Many factors combined in the large-scale development of industry, natural resources, an abundant labor supply, labor-saving devices, surplus capital for investment, good transportation facilities, a government friendly to business, and the lack of internal barriers to trade. All contributed to the growth of giant businesses.

The United States government, for a time, allowed businesses to grow as large as they wanted to. But, citizens began to draw attention to the abuses of big business. The government decided to regulate corporate enterprises, and the railroads were the first to be curbed.

The economics of the United States today presents perplexing problems. Yet, an understanding of these problems can afford the student the opportunity to probe into those occupational roles available within our business organizations today.

STRATEGY NUMBER 1-4

NAME OF UNIT The Rise of American Business GRADE/SUBJECT Grade 8 - Social Studies

Major Aim To use an understanding of the rise of American Business as a vehicle to produce career awareness

* *

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
A) The student will be able to compare and contrast early forms of business organizations with those that exist today.	I) Early forms of business organizations	1) Divide your class into groups and, through small group decision making, have them determine whether they prefer the early forms of business organizations (proprietorship and partnership) to the dominant one today (corporation); and explain their conclusion to the class.	Filmstrip 1, 6, 18, 19, 21
B) The student will be able to discuss why a product was made by one person from start to finish.		2) Each member of your class must create a proprietorship or partnership for a hand-made product within the pre-Industrial Revolution time frame. Partnerships may be formed by 2 or more students. Upon completion give each student an imaginary $5.00 and have them purchase products from each other to ascertain: the advantages and disadvantages of each business form; problems which arose in each; the amount of money made by each person; the amount of pride and feelings of satisfaction involved in making the product (products must be made at home).	

EVALUATION PROCEDURE: Teacher's professional opinion of quality of ideas to substantiate group decisions; student interaction and participation; student satisfaction with project; student evaluation of project.

STRATEGY NUMBER 5

NAME OF UNIT The Rise of American Business

GRADE/SUBJECT Grade 8 - Social Studies

Major Aim To use an understanding of the rise of American Business as a vehicle to produce career awareness

* *

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
C) The student will be able to list inventions which contributed to the growth of big business and those occupations which resulted from the invention.	I) Early forms of business organizations	3) Divide your class into groups and have them consider the following questions for reports back to the whole class by a group selected reporter: a) Which do you think were the three most serious problems encountered by the people who, by themselves, made a product from start to finish? b) How do you think they solved their problems? c) How would you solve these problems using present day technology.	Filmstrip

EVALUATION PROCEDURE: Student creativity in problem solving; quality of information presented to substantiate decisions.

STRATEGY NUMBER 6

NAME OF UNIT The Rise of American Business GRADE/SUBJECT Grade 8 - Social Studies

Major Aim To use an understanding of the rise of American Business as a vehicle to produce career awareness

* * *

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
C) The student will be able to list inventions which contributed to the growth of big business and those occupations which resulted from the invention.	I) Early forms of business organizations	4) Have your students prepare a list of occupations which existed in pre-Industrial Revolution times and tell why each was important to the economic life of that era.	Filmstrip 9
		5) Have your students draw a picture to illustrate the concept of interchangeable parts and have them list and discuss the importance to mass production of: labor supply, power, resources, transportation, surplus capital.	Filmstrip 15, 5, 8

EVALUATION PROCEDURE: Accuracy of student prepared list; depth of reasoning and decision making; quality of cognitive skills used; quality of discussion.

STRATEGY NUMBER 7-9

NAME OF UNIT The Rise of American Business GRADE/SUBJECT Grade 8 - Social Studies

Major Aim To use an understanding of the rise of American Business as a vehicle to produce career awareness

* *

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
D) The student will be able to list occupations which are associated with individual proprietorships in the past and present.	I) Early forms of business organizations	6) Divide your class into groups and have each select an invention which contributed to the rise of big business. Have each group draw a chart which includes all those occupations associated with the invention.	Filmstrip 6
		7) Have each of your students go into the business district of your community and, by selecting 10 enterprises, ascertain which are individual proprietorships or partnerships, and the occupations associated with them. Then use large group discussion to ascertain which occupations more readily lend themselves to be proprietorships and partnerhips. Have them compare these occupations with those which lend themselves to be corporations.	

EVALUATION PROCEDURE: Accuracy of chart; quality of information presented; involvement and participation of students; willingness to participate.

#10

#11

STRATEGY NUMBER 10-14

NAME OF UNIT The Rise of American Business GRADE/SUBJECT Grade 8 - Social Studies

Major Aim To use an understanding of the rise of American Business as a vehicle to produce career awareness

* *

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
A) The student will be able to explain how a corporation is organized. B) The student will be able to explain how a corporation raises money. C) The student will be able to contrast the advantages and disadvantages of a corporation.	II) The Corporation in American business	1) Have your students do research into the advantages and disadvantages of a corporation, how a corporation is organized and how it raises money. After completion, have students create a corporation by selecting a board of directors - which in turn will elect a president, vice president, secretary, and treasurer. Students should create a corporate name and trademark. The corporation should then issue a total amount of stock equivalent to 5 times the number of students in the class, at the price of 5 cents. Students should be permitted to purchase only 1 to 5 shares of stock in the corporation at the outset. At a stockholder meeting, presided over by the chairman of the board of directors, the corporation should decide on a product to produce for sale (jelly apples for example). Your students should sell the product within the school, after deciding on its price, and divide the profits by per share of stock. Students should then be permitted to buy and sell stock within the classroom. Teacher judgement should be used to determine length of total activity.	Field trip to New York Stock Exchange Filmstrip 22

EVALUATION PROCEDURE: Quality of research and skills employed; task organization; acceptance by students.

STRATEGY NUMBER 15

NAME OF UNIT The Rise of American Business GRADE/SUBJECT Grade 8 - Social Studies

Major Aim To use an understanding of the rise of American Business as a vehicle to produce career awareness

* * *

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
D) The student will be able to illustrate how corporations have affected the lives of Americans	II) The corporation in American business	2) Once the teacher has taught the class how to read and gain information from stock listings, distribute to each student an imaginary $1000 to invest in stocks. Each student should "buy" shares of stock in one or more companies listed on a stock exchange. Each student should plot a daily graph of the rise and fall of their stocks. At the end of a given time, each student should show their graph to the class and report on profits or loss. Within the time frame, students should be permitted to sell and buy other stocks. (This activity should be continued while other activities are taking place.) 3) Once your students select the company (ies) in which to invest their $1000, have them prepare a list of occupations which exist within their company(ies).	

EVALUATION PROCEDURE: Quality, accuracy, presentation of findings.

STRATEGY NUMBER 16-18

NAME OF UNIT The Rise of American Business GRADE/SUBJECT Grade 8 - Social Studies

Major Aim To use an understanding of the rise of American Business as a vehicle to produce career awareness

* * *

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
D) The student will be able to illustrate how corporations have affected the lives of Americans.	II) The corporation in American business	4) Divide the class into groups and have each ascertain how corporations have affected the lives of Americans within one of the following fields: medicine, synthetics, communications, transportation, home appliances, beauty aids, etc. Each group should prepare a communications plan for reporting their findings to the class, incorporating the use of slides, transparencies, video-tape, sound tape. Each report should include the types of occupations which exist within the selected field.	

EVALUATION PROCEDURE: Quality of group interaction; creativity involved in presenting data; depth of research.

STRATEGY NUMBER 19

NAME OF UNIT The Rise of American Business

GRADE/SUBJECT Grade 8 - Social Studies

Major Aim To use an understanding of the rise of American Business as a vehicle to produce career awareness

* * *

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
D) The student will be able to illustrate how corporations have affected the lives of Americans.	II) The corporation in American business	5) Have students prepare a panel discussion on how present day corporations can contribute to the solving of: a) the pollution problem. b) the energy crises. c) a problem which will exist in the year 2000.	

EVALUATION PROCEDURE: Quality of questions raised and asked; preparedness of the panel; creativity of futuristic problems.

STRATEGY NUMBER 20

NAME OF UNIT The Rise of American Business GRADE/SUBJECT Grade 8 - Social Studies

Major Aim To use an understanding of the rise of American Business as a vehicle to produce career awareness

* *

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
A) The student will be able to name the various forms monopolies which existed in the U.S. in the 1880's.	III) Forms of business monopolies	1) Have each student prepare a chart illustrating the monopolistic practices of one of the following: pools, trusts, interlocking directorates, cartels. 2) Have students do research to gain an understanding of such legal monopolies as: a) patents b) copyrights c) trade names e) public utilities Students should report to the class why legal monopolies are necessary and which occupations are associated with them.	

EVALUATION PROCEDURE: Research illustrated in the chart; presentation of the report; accuracy; understanding of concept.

STRATEGY NUMBER 21

NAME OF UNIT The Rise of American Business

GRADE/SUBJECT Grade 8 - Social Studies

Major Aim To use an understanding of the rise of American Business as a vehicle to produce career awareness.

* * *

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
A) The student will be able to name the various forms of business monopolies which existed in the U.S. in the 1800's.	III) Forms of business monopolies	(3) Divide your class into groups and have each prepare a collage of 'labels of products' - the trade name of which is assumed by the general public to be the product--such as: Vaseline, Band-Aids, Brillo, Popsicle, Levi's, Frigidaire, etc. Have each group decide on how a company can dominate a field through their brand name.	

EVALUATION PROCEDURE: Number of products discovered; conclusions illustrated by creative thought; artistic value of collage.

STRATEGY NUMBER 22

NAME OF UNIT The Rise of American Business

GRADE/SUBJECT Grade 8 - Social Studies

Major Aim To use an understanding of the rise of American Business as a vehicle to produce career awareness

* * *

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
B) The student will be able to differentiate between legal and illegal monopolies which exist today.	(III) Forms of business monopolies	4) Have your students devise a strategy whereby they can control price and supply within the oil, steel or meat packing industries in the 1800's. Compare their findings with the strategies used by Rockefeller, Carnegie, and Armour to create monopolies.	Filmstrip 2, 3, 4
C) The student will be able to discuss how monopolies were created in the 1800's, within the oil, steel, and meat packing industries.			

EVALUATION PROCEDURE: Quality of comparisons, research, creativity of strategies developed.

STRATEGY NUMBER 23

NAME OF UNIT The Rise of American Business

GRADE/SUBJECT Grade 8 - Social Studies

Major Aim To use an understanding of the rise of American Business as a vehicle to produce career awareness

* * *

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
A) The student will be able to relate how a monopoly, in the 1800's, could dominate American life.	IV) Government regulation of big business	1) Have your students, in groups, trace the monopolistic development of a business organization which existed in the 1800's. Have them prepare a chart to illustrate the company holdings of the monopoly.	
B) The student will be able to discuss why the U.S. government decided to regulate big business since it had carried on a laissez faire policy since the Civil War.		2) In an effort to gain an understanding of the immense wealth accumulated by individuals as a result of monopolistic practices, have students research the philanthropic activities of Rockefeller, Carnegie, etc. Have your students pretend they are either Commodore Vanderbilt or J. P. Morgan about to give away 1 million dollars. Have them decide, as a group, how to give the money away, to whom to give it, and their reasons for their choice of recipients.	
C) The student will be able to illustrate how public opinion was directed against the abuses of big business.		3) Have students prepare reports on Nader's Raiders. Use large group discussion to ascertain: a) Why corporations dislike the activities of Ralph Nader. b) How the general public benefits from these activities. Compare the activities of Ralph Nader to those of the "muckrakers."	

EVALUATION PROCEDURE: For Activities 1 and 2: Research shown in preparing chart and clarity of presentation of research material; creativity of decisions.

For Activity 3: Quality of cognitive skills employed; clarity of comparisons; quality of participation and discussion.

STRATEGY NUMBER 24-26

NAME OF UNIT The Rise of American Business GRADE/SUBJECT Grade 8 - Social Studies

Major Aim To use an understanding of the rise of American Business as a vehicle to produce career awareness

* *

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
D) The student will be able to relate how the government regulated big business in the past and how it is regulated today.	IV) Government regulation of business	1) Have your students prepare charts, graphs, etc., to illustrate government regulation of big business, including the eras of: (a) laissez faire; (b) controls from 1890 to the New Deal; (c) The New Deal to the present.	
E) The student will be able to list how government regulations of big business affect occupational roles.		2) Have your students interview community businessmen and determine under which government regulations they must operate. 3) Invite an elderly businessman to either be a guest speaker or interview him to ascertain how government regulations have affected the operation of his business.	

EVALUATION PROCEDURE: Quality and clarity of product; student participation; quality of student questions; enthusiasm of students.

STRATEGY NUMBER 27

NAME OF UNIT The Rise of American Business

GRADE/SUBJECT Grade 8 - Social Studies

Major Aim To use an understanding of the rise of American Business as a vehicle to produce career awareness

* *

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
D) The student will be able to relate how the government regulated big business in the past and how it is regulated today.	IV) Government regulation of business	4) Have your students prepare a list of occupations which are a result of government monitoring whether or not businesses are complying with regulations. 5) Have your students do research to discover how governmen regulations affect male and female occupational roles.	
E) The student will be able to list how government regulations of big business affect occupational roles.			

EVALUATION PROCEDURE: Quality of list as reflection of research; research skills used; credibility of findings.

STRATEGY NUMBER 28-30

NAME OF UNIT The Rise of American Business

GRADE/SUBJECT Grade 8 - Social Studies

Major Aim To use an understanding of the rise of American Business as a vehicle to produce career awareness

* * *

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
A) The student will be able to determine what effects major labor organizations have on wages and prices.	V) Today's economic society	1) Have your students discuss and discover the meaning of the following statement: "The rise of organized labor was a direct result of the rise of big business."	Filmstrip 16, 17
B) The student will be able to relate how the government protects the worker.		2) Have your students prepare a plan of action to bring about changes in the conditions of women in the labor force in the late 1880's.	
		3) Have your students prepare a three-way conversation that might have taken place in 1880, in which a union organizer tries to persuade a worker to join a union, and a company representative tries to persuade him not to. Which argument would they use? Which arguments would be used by each side today?	

EVALUATION PROCEDURE: Quality of discussion; quality of factual background used to support decisions; creativity of plan; credibility of presentation.

STRATEGY NUMBER 31

NAME OF UNIT The Rise of American Business GRADE/SUBJECT Grade 8 - Social Studies

Major Aim To use an understanding of the rise of American Business as a vehicle to produce career awareness

* *

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
A) The student will be able to determine what effects major labor organizations have on wages and prices. B) The student will be able to relate how the government protects the worker.	V) Today's economic society	4) Divide your class into groups and have your students select one of several large national unions (e.g., United Auto Workers, Teamsters, etc.). Each group is to write letters, interview union members, inquire through research, etc., as to ascertain the benefits, including wages, which the union has obtained over the past 20 years; and the effect the rise in wages has had on increased prices. Groups should report their findings to the class as a whole. Each group should then zero in on the steel industry and prepare a list of consumer products which are affected by a rise in steel prices. Each group should prepare a chart which illustrates the cycle that higher prices cause people to demand higher wages, which in turn leads to higher prices.	Filmstrip 10, 11, 12, 13

EVALUATION PROCEDURE: Group and student interaction; clarity of conclusions; quality of list and chart.

STRATEGY NUMBER 32-34

NAME OF UNIT The Rise of American Business GRADE/SUBJECT Grade 8 - Social Studies

Major Aim To use an understanding of the rise of American Business as a vehicle to produce career awareness

* *

OBJECTIVE	CONCEPT	SUGGESTED ACTIVITY	RESOURCE
A) The student will be able to determine what effects major labor organizations have on wages and prices.	V) Today's economic society	5) Prepare a panel discussion and encourage audience participation in questioning--"Should industry raise prices to pass on labor wage increases to the consumer?"	Filmstrip 7, 20
B) The student will be able to relate how the government protects the worker.		6) After selecting a specific occupation, your students should write a letter to the National Labor Relations Board asking how the government protects workers in that occupation.	
		7) Ask your class this question: "Why do people work?" The students must create something (sketch, song, poster, scrapbook) that communicates their answer.	

EVALUATION PROCEDURE. Quality of thinking; creativity used in presentation; credibility of information presented; quality of facts used; willingness to participate.

CHAPTER X

EVALUATING CAREER EDUCATION MATERIALS

Sessions twelve and thirteen are concerned with the evaluation of commercial career education materials. The purpose of these sessions is to identify the criteria by which one judges the adequacy and applicability of commercial career education materials, and to provide the participants with experience in analyzing sample career education materials.

The first part of the session calls for a brief re-examination of the need for career education. The concern is not so much that the group agree upon a specific set of needs to use as a basis for specifying evaluation criteria; rather the purpose of discussing the need for career education is to create a climate for thinking critically about career education materials.

Following this introductory discussion of career education and coming to agreement regarding the need for criteria for evaluating career education materials, the participants should be introduced to the two instruments provided as part of the resources for this session. One instrument is entitled "Career Education Materials Evaluation Format." The second is identified as "Instructional Materials Analysis Instrument." They are provided so that the participants can start with concrete, hands-on instruments that they can later modify for their own purposes.

If a high-structure approach is used, the modifications will be agreed upon by each of two groups. Group A will review one instrument, and Group B, the other instrument. After reviewing and comparing the strengths and weaknesses of each of these two instruments, the class will make modifications in the form of additions or deletions, and will agree that this is the format to apply in reviewing the commercial materials.

Using a low-structure approach, the students will work in small groups to conduct this same process. When they are finished reviewing the two instruments critically, they will have modified one of them for their individual use. Obviously, in the low-structure revisions, each instrument will be geared to the needs of that specific small group.

At the conclusion of this phase of instruction, all students will have an evaluation instrument. The next step will be to conduct a pilot study, as a preliminary effort to test and determine the applicability of the categories on the instrument to the analysis of career education materials. This is a time to apply some general categories and attempt to use them on "real world" materials. After this review, it is expected that some additional revisions and changes will be made in the format of the instrument. The purpose of this pilot test is to insure that the set of criteria and format developed for the instrument can actually be applied to the review of curriculum materials.

During the development and pilot test activity, free discussion should be encouraged and individuals should feel that they can eliminate categories that they don't understand or find useful. In addition, participants should add categories or items if they discover something that is important and not in the present format.

Once the small groups (low-structure) or entire class (high-structure) feels comfortable with the revised instrument, the group should proceed to the actual evaluation of curriculum materials. It is hoped that a wide array and broad sampling of career education materials will be available so that individuals can work alone or in small groups for the purpose of conducting their reviews. The procedure has been designed so that there will be three twenty-minute material review sessions. This is to encourage the participants to use their time efficiently in analyzing career education materials. At the end of each twenty-minute period, a brief discussion should be conducted in which students will have a chance to share their findings. After the discussion period, each group will go back to critiquing and evaluating either the same materials using the same format, or new materials using the same format.

At the completion of the three twenty-minute sessions, each participant should have an opportunity to summarize and pull together his/her thinking, using a group process. Each student (or group) should summarize and present his/her results to the entire class, and provide a general conclusion about the "state of the art" of career education materials.

One further note on the final phase of this analysis procedure is necessary. The session will be found more worthwhile if the final critical analysis is positive in tone. Encouraging participants to highlight the positive aspects of the materials reviewed is preferred. This encourages participants to share their insights, and consider alternative uses of the different aspects of curriculum materials. A final review and assessment of the state of the art of commercial career education materials might be summarized by the instructor.

SESSIONS TWELVE AND THIRTEEN
EVALUATING CAREER EDUCATION MATERIALS

OBJECTIVE: Students will develop the ability to critically analyze career education materials.

HIGH-STRUCTURE GUIDELINES	LOW STRUCTURE GUIDELINES
1. Teacher and students will discuss the need for the evaluation of career education materials.	1. Teacher and students will discuss the need for evaluating career education materials. Teacher should record some of the student observations on a transparency.
2. Teacher and students will review two evaluation instruments. The teacher will guide the review by clarifying components or categories of the instruments and, at the same time, encouraging student comments and questions.	2. Each student will review the two evaluation instruments. Then, in small groups, students will revise one of the two instruments. These revisions will be shared with the total group.
3. Preliminary application of evaluation instrument to the analysis of career education materials. Each student will attempt to apply one of the two instruments to the analysis of career education materials. Since there are two instruments, the class will be divided into two groups. These two groups will their instruments following their preliminary analyses. However, there is a need to settle on the criteria for evaluation that each group will use during the analysis sessions.	3. Preliminary will test their revised instruments during a preliminary analysis of career education materials. Students may work alone or in pairs. Discussion should be encouraged. Revisions - additions or deletions - are regarded as tentative. Students need to feel comfortable with their choice of criteria for evaluation. Each group will have their own evaluation criteria.
4. The two large groups will form small subgroups to analyze career education materials. Every twenty minutes, the class will stop their analyses and share their findings. A total of three twenty minute sessions will be held over the two day period.	4. The small group will apply their criteria to the analysis of career education materials. The analysis sessions will be halted every twenty minutes to allow the groups to share their findings. The discussion of their findings can continue as long as the class maintains interest.

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#42

HIGH-STRUCTURE GUIDELINES	LOW-STRUCTURE GUIDELINES
5. The final phase of this two day evaluation period will conclude with a wrap-up session. Individuals are encouraged to summarize their evaluation findings and conclusions, and to speculate on the "state-of-the art" of career education materials. Every student should have the opportunity to participate in this activity. The teacher should feel free to elicit comments.	5. The wrap-up session should allow students to summarize their findings and conclusions. These general comments allow for reflections and personal assessments of the"state-of-the art." Highlights should include strengths of different materials and speculations on ways materials might be used during instruction.

RESOURCES:
1. Handout - "Instructional Materials Evaluation Format"
2. Handout - "Instructional Materials Analysis Instrument"
3. A variety of commercially produced career education materials (provided by instructor)

EVALUATION CAREER EDUCATION MATERIALS

SESSIONS TWELVE AND THIRTEEN - CONTENT OUTLINE

1. Evaluation Format
    a. Components
    b. Format
2. Instructional Materials Analysis
    a. Cover sheet
    b. Internal characteristics
    c. External characteristics
    d. Summary statement

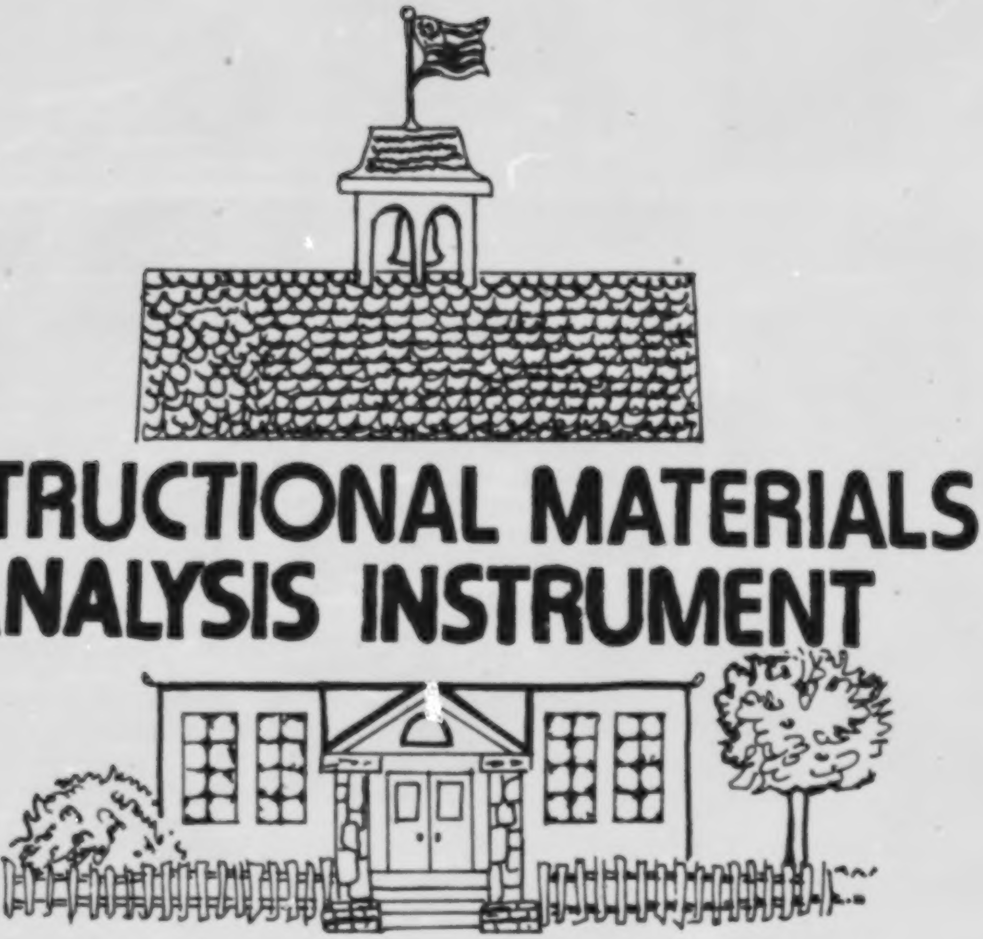
RESOURCE MATERIALS

INSTRUMENT A

INSTRUCTIONAL MATERIALS EVALUATION FORMAT

COMPONENTS	YES	NO
1. Does the activity have a title?	___	___
Does the title accurately represent the activity?	___	___
Is the title appealing?	___	___
2. Is there a clear statement of purpose to the activity?	___	___
...general orientation - introduction?	___	___
...goal statement?	___	___
...performance objective?	___	___
3. Is the activity linked to a broader curricular perspective?	___	___
...keyed to grade level?	___	___
...keyed to subject area(s)?	___	___
...keyed to occupational cluster?	___	___
...keyed to career education goal/program element?	___	___
...keyed in another fashion? To what?	___	___
4. Is the activity itself clear?	___	___
...sequence of events specified?	___	___
...prior learnings or activities noted?	___	___
...nature of teacher-student interactions made clear?	___	___
...social climate delineated?	___	___
5. Are the resources identified?	___	___
Are necessary materials provided?	___	___
Are other resources identified?	___	___
Are supplementary materials noted?	___	___
6. Is there an evaluation component?	___	___
...evaluation of learner outcomes?	___	___
...evaluation of the curriculum activity?	___	___
...evaluation of stereotyping by sex, race, handicap, etc.?	___	___
FORMAT		
7. Is it organized for ease of use?	___	___
Are each of the sections clearly delineated?	___	___
Is the sequence and flow of information appropriate?	___	___
Is the length of each section appropriate for its purpose?	___	___
Is the overall length appropriate?	___	___
Are the resource materials in "ready to use" form?	___	___
Is the organization of each page easy to follow?	___	___
8. Is it visually attractive?	___	___
Are the sections attractive by themselves?	___	___
Is good use made of: color, size, textures of stock?	___	___
graphics?	___	___
Is the overall package visually stimulating?	___	___

INSTRUMENT B



INSTRUCTIONAL MATERIALS ANALYSIS INSTRUMENT

*This form designed and prepared by Barbara Baird, while employed by the Career Education Dissemination Information Service, Massachusetts Department of Education, 1977, and reproduced with her permission.

PURPOSE

As educators, we are concerned with the quality of instructional materials we choose for our classrooms, libraries, and media centers, yet limited budgets and time constraints increase our dependence on publishers' advertisements.

Further complicating the selection process is the vast array of commercial materials, ranging from texts to multi-media kits, from single concept to whole program, from inexpensive to expensive. From this abundant collection, how do we decide which materials are most effective for our programs or resource areas? How can we become well-informed consumers of educational materials?

The CEDIS instrument for instructional materials analysis is intended to demonstrate an effective process for analyzing and evaluating the appropriateness of instructional materials for identified needs.

This instrument is designed to capture those features of all instructional materials that are indicative of their overall value. Specifically, it addresses the following analytical questions.

- What do we know about the developer's intentions regarding this material?
- What characterizes the content of this material?
- What methodologies are appropriate in utilizing this material?
- What is the role of evaluation in this material?
- How appropriate is this material for the target audience, classroom, and community?

To answer these basic questions, we formulated a series of objective items. Your answers to these items provide data for a concluding analytical statement from which you determine your evaluation of the material. Decisions regarding whether to buy the material, if or where it fits into the curriculum and who should use the material can be made from the evaluation. The information gained from this analysis and evaluation process can then be shared with other educators.

DESCRIPTION

The instrument is composed of the following sections:

1. COVER SHEET - Details the physical aspects of the instructional material to be evaluated, global features of the subject area, and audience of intended use.

2. INTERNAL CHARACTERISTICS - Explores intents, contents, methodology, and evaluation through objective items and summary statement.

3. EXTERNAL CHARACTERISTICS - Explores suitability to your audience, classroom, and community through objective items and summary statement.

4. SUMMARY SHEET - Includes your concluding analytical and evaluative comments.

Together these sections comprise what we intend to be a thorough yet concise form which uses objective criteria to influence decision-making as it relates to the purchase and use of instructional materials.

DIRECTIONS

1. Briefly examine the material to be analyzed before commencing so that you are familiar with its components and layout.

2. Complete the cover sheet first.

3. Unless otherwise indicated, all objective items are intended as forced-choice answers. Choose the answer which best matches your observations; supplement it with a note where necessary.

4. Do all objective items and the summary statement of a section before proceeding to the next section.

5. Complete the summary sheet, using the directions on it to compose an analysis summary and an evaluation summary.

6. Attach the cover sheet to the summary sheet, together they form a concise analysis and evaluation ready to be shared with other educators.

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COVER SHEET

Title: ____

Author(s): ____

Publisher/Supplier: ____________________________________

Year Published ______________ Place ____________ Cost ____________

Physical Components (List all items, e.g., teacher's guide, spirit masters, transparencies, etc.)

______________ ______________ ______________

______________ ______________ ______________

Subject Area(s) of Intended Use: ______________________________

Other Possible Applications: ______________________________

Grade Level(s) of Intended Audience: __________________________

Special Characteristics of Audience: __________________________

Readability:

not applicable

applicable, but no formula applied
- estimated reading level: __________________________

applicable, and formula applied
- readability formula used: __________________________
- calculated reading level: __________________________

Packaging (Check those that apply):

conveniently packaged; easy to use

sturdy packaging

inconvenient (e.g., difficult to keep components together)

poorly constructed; fragile

INTERNAL CHARACTERISTICS

How Well is the Material Designed?

A. INTENTS: What is known about the designer's purpose?

1. The intended use of this material:

   a. is clearly stated
   b. is suggested such that the analyst can infer it
   c. cannot be inferred

2. Student objectives for this material:

   a. are clearly stated
   b. are suggested such that the analyst can infer them
   c. cannot be inferred

3. The behavioral domain chiefly emphasized in the material is:

   a. affective (e.g., values clarification, decision-making)
   b. cognitive (e.g., critical thinking, basic skills)
   c. psychomotor (e.g., gross motor skills coordination)

Summary: Make a brief objective statement about the intents component, using your responses above to guide you.

B. CONTENTS: What is known about the range, depth, and organization of material?

1. The scope of topics included in this material is best described as:

   a. a more extensive range than usually found
   b. less coverage than is typically found
   c. a conventional range of topics

2. The depth of coverage of major concepts can best be described as:

   a. adequately developed
   b. more extensively developed than usually found
   c. inadequately developed

3. The sequence of the material is based on:

   a. chronological order
   b. movement from general information to specific examples

c. inherent logic of the material
d. no apparent rationale
e. other (specify): ______________________________

4. Supplementary student activities/readings are:

   a. clearly described
   b. suggested such that the user can create them
   c. not addressed by the developer

Summary: Make a brief objective statement about the content component, using your responses above to guide you.

C. METHODOLOGY: What is known about how to implement this material?

1. The instructional setting (e.g., small-group discussion, inquiry method, lecture) intended for use:

   a. is clearly stated
   b. is suggested such that the user can infer it
   c. cannot be inferred

2. The student role intended by the developer is that of:

   a. passive receivers of information
   b. actively involved participants
   c. both 'a' and 'b'

3. The teacher role intended by the developer is that of:

   a. lecturer, presenter
   b. guide, facilitator
   c. other (specify): ______________________________

4. Teacher preparation time required to use this material is:

   a. extensive
   b. moderate
   c. little

Summary: Make a brief objective statement about the methodology component, using your responses above to guide your statement.

D. EVALUATION: What is known about the assessment of learner progress?

*THIS SECTION PERMITS MULTIPLE ANSWERS. CHOOSE MORE THAN ONE IF APPROPRIATE.

1. The format of the evaluation component is:
   - a. not provided (if you check this response, do not complete the rest of this section)
   - b. observation checklist/rating scale
   - c. questions for oral discussion
   - d. multiple choice or related objective items
   - e. questionnaire
   - f. essay or related open-ended type questions
   - g. other (specify): ________________

2. The purpose of the evaluation component is to measure:
   - a. entry competency
   - b. cognitive achievement
   - c. affective change
   - d. other (specify): ________________

3. Is an answer key or guide provided: __ Yes __ No

4. Is the evaluation component consistent with the developer's intents for the material? __ Yes __ No

5. Is the evaluation component consistent with the learning activities of the material? __ Yes __ No

Summary: Make a brief objective statement about the evaluation component, using your responses above to guide your statement.

____

____

____

____

EXTERNAL CHARACTERISTICS

How Well Does the Material Suit Your Classroom, Your Students, Your Community?

1. Treatment of the sexes in this material can be described as:

   a. strongly sex-biased
   b. presenting token equality
   c. sex-fair

2. Treatment of various groups (e.g., ethnic, religious, racial, age) in this material can be described as:

   a. strongly biased
   b. presenting token equality
   c. equalitarian

3. The content value of this material is:

   a. of key importance
   b. of secondary importance
   c. primarily of entertainment value

4. The following types of content errors may be present. Check more than one if appropriate.

   a. factual errors
   b. factual omissions
   c. biased presentation
   d. misleading charts/diagrams
   e. other (specify): ______________________
   f. none of the above

5. The currency of this material can be described as:

   a. out-dated in content
   b. having out-dated illustrations and/or physical design
   c. contemporary in content and design

Summary: Make a brief objective statement about the external characteristics, using your responses above to guide your statement.

SUMMARY STATEMENT

A. STATEMENT OF ANALYSIS: Consolidate the five objective Summary Statements in the body of the instrument to produce your summary analysis.

SUMMARY ANALYSIS

B. STATEMENT OF EVALUATION: Assess your satisfaction or dissatisfaction with the material as revealed in the objective data of the analysis process. Relate your opinions also to your classroom context and knowledge of your school population.

SUMMARY EVALUATION

CHAPTER XI

THE ROLE AND FUNCTION OF SCHOOL PERSONNEL IN CAREER EDUCATION

The purpose of this session is to identify the roles and functions of school personnel for career education. This session requires a carefully orchestrated process approach. The need is to provide the participants with a non-threatening "values clarification" opportunity to identify their own positive and negative feelings about implementing career education, while insulating the process through the use of a role-playing situation. It is important to enable the participants to identify their own perceptions of the constraints, roadblocks, problems, and concerns that they have regarding career education. It is essential, however, that this process unfold as a positive experience, and *not* as a complaining, "gripe" kind of experience. To facilitate this purpose, an opportunity is provided to identify a possible *solution* to each of the roadblocks found regarding career education.

One of the major solutions to many of the career education implementation problems is to clarify and specify the *roles* and *functions* of the various personnel in the school community in terms of implementing career education. The final component of this lesson, therefore, addresses the identification of the roles of members of the school community and their various functions.

The nature of this particular session lends a great deal of similarity for both the low-structure and high-structure activities. The differences will be noted as the session is presented.

The major activity of this session is a role-play. The setting itself is presented with the resource materials, and should be self-explanatory. Additional information is presented here regarding the positions of the cast of characters. The assistant superintendent for instruction is Dr. Guide-Em Guidebook. He is very much aware of the need to infuse career education into the educational process. He is not sure, however, whether it is appropriate at the elementary school level. He is also concerned about the size of the budget for curriculum development.

Nina Numbergame is the math coordinator and under a great deal of pressure to increase the level of standardized math test scores in response to the "back to basics" movement. She views career education as a disruptive agent that will cause a watering down of the integrity of the math curriculum.

Philip Fileaway is a strong advocate for career education. As a guidance counselor, however, he does not perceive himself as a generic career education teacher. He sees career education as the classroom teacher's responsibility, and he doesn't want it thrust upon him for actual implementation.

The science teacher is Mr. Terence Testitube. His friends call him Testy, and he is concerned about "covering" his course of study. He is also concerned about the dangers of watering down his curriculum. He really doesn't understand how career education can be infused into the circulatory system of the earthworm. He sees it primarily as a guidance function.

The assistant principal, Lucy Lastinline, functions primarily as the school disciplinarian. She believes strongly that students need better attitudes toward school and work. She is not, however, a strong curriculum person.

Mr. Tidy Moneylock is the business manager. He values career education for high school students who are not going on to college. He perceives it to be a form of occupational or vocational education. He is very concerned about money in the school district, and will fight any expensive programmatic alterations.

Mr. Arnold Wiggley is the superintendent of schools, and sometimes is called Uncle Wiggley (but only behind his back). He is very concerned about finances, and possible forced reduction of his teaching staff. But he knows that career education is being implemented all over the country, and he doesn't want to see his school system fall behind in its educational programming. Consequently, he is carefully examining career education but will be very cautious about committing resources unnecessarily.

The PTA president, Toby Tellitall is both extremely positive and opinionated. She sees the need for career education and wants the community to get involved. Her own son did not go to college, and is presently unemployed. She is very supportive, therefore, of whatever the school is going to do to help kids be ready for something after high school. She really wants the best for the students in the school, even though her views tend to be narrowly conceived.

The principal is a strong curriculum advocate and effects her influence through the curriculum coordinators. She sees the need for infusing career education in her program. She's probably the strongest advocate.

Lola Littlepup is the primary elementary school teacher on this committee. She believes that she's been doing career education for years. She has a "community helpers" unit in her program. She has the jobs of the classroom and its management posted. She feels that her students are receiving good career education and have been for many, many years.

The representative from the school band is Mr. Ben Buggerband. He's concerned about the number of high school dropouts, and about public complaints that students do not receive any direction in school regarding careers. He doesn't really see a need for career education at the elementary school level. He sees it as a secondary school level program - and of course he's watching the budget as well.

That concludes the cast of characters. Each member of the class should be assigned a role. They must adhere to their role. In the process, however, they will indeed express their own feelings and concerns through these non-threatening roles. The instructor must play a careful noncommital role in this process, keep the discussion focused on real issues, and not allow any member of the group to treat this as a comedy. A carefully guided role-play will present the main issues and allow the participants to express their personal feelings without identifying them as such.

The actual role-play itself will require about fifteen minutes. This will identify most of the concerns. After the role-play is completed, a brainstorming process should be employed to record all the concerns, problems, and roadblocks identified on the chalkboard. Have one participant act as a recorder for this process. The class should then be divided into three groups, and provided with sufficient time to identify solutions for these concerns. As the instructor, you should then bring the groups together again to share their solutions to these problems.

The last half hour of this session should be devoted to the activity dealing with roles and functions. Roles are identified as higher management, middle management, implementor, supportive staff, community, and students. Functions are specified as decision-making, budgeting (also known as control), planning, facilitating, communicating, quality assurance, and implementing.

The second page of the resource handout includes operational definitions for these leadership skills, or functions. The class, as a whole, should now engage in the process of completing the matrix. This calls for placing a "P" for a primary function, an "S" for a secondary function, and a zero for no function. The purpose is to show, for example, that the teacher holds responsibility as an instructional decision-maker as a primary function, but really has very little input in the policy-making process. He/she exercises minor input in controlling, does some planning, performs very little facilitating, does a good deal of communicating, is not responsible for quality assurance, and, of course, is the primary person for implementing the program.

Some roles, such as that of the teacher, will be relatively clearly defined. Other personnel, particularly at the middle management level (such as the principal) will be more difficult and vary greatly. When compared to the higher management personnel, the relationships and responsibilities for the various functions should be quite revealing. This process may be conducted either horizontally or vertically. That is, the group may view all the functions for each role, one role at a time. Or, they may choose to review all the roles against one function, before moving to the next function. Either process should identify the areas of clear responsibility and those of ambiguity. In reviewing concerns and roadblocks, most will fall into these ambiguous or gray zones. Thus, the need for role clarification and functional analysis will be highlighted.

If a high-structure treatment is selected, the instructor should play more of a guiding role by chairing the role-playing meeting as the superintendent, and strongly guiding the direction of that meeting.

Similarly, the instructor should lead the examination of the constraints, roadblocks, and problems, by distributing those pages and reviewing them personally, rather than using a group process. The participants might then select one roadblock and develop a solution for it. The teacher could lead a discussion by going around the room and having each member share just what they've done to solve that problem.

Finally, in reviewing the roles and functions, the class could perform this activity as a whole with the teacher leading the discussion through the activity and structuring both the process and outcome.

SESSION FOURTEEN
ROLES AND FUNCTIONS OF SCHOOL PERSONNEL IN CAREER EDUCATION

OBJECTIVES:

1. The students will express their feelings about implementing career education.
2. The students will brainstorm constraints and possible solutions in implementing career education.
3. The students will identify the roles of members of the school community and contrast those roles to the various functions involved in the implementation of career education.

HIGH-STRUCTURE GUIDELINES

1. The instructor will define the task: "This is an after-school first planning session for this career education task force. They are here to voice their concerns, problems, and roadblocks in undertaking a school-wide program."

2. The instructor will introduce the role playing activity and distribute the setting and ten different role descriptions (one to each class member) and briefly introduce the characters. Each character should also have a name tag with the organizational role under the name.

3. The instructor should play the role of a consultant and chair the meeting. The consultant should strongly guide the discussion.

4. The instructor should distribute and review the prepared list of constraints, roadblocks, and problems associated with planning and implementing a K-12 program.

LOW-STRUCTURE GUIDELINES

1. The instructor will define the task: "This is an after-school first planning session for this career education task force. They are here to voice their concerns, problems, and roadblocks in undertaking a school-wide program."

2. The instructor will introduce the role playing activity and distribute the setting and ten different role descriptions (one to each class member) and briefly introduce the characters. Each character should also have a name tag with the organizational role under the name.

3. The instructor should play the role of a consultant and intervene only when the proceedings get bogged down.

4. The instructor, using a student volunteer as a recorder, should work with the class to identify a list of roadblocks which were developed as part of the role playing. There may be as many as 20 or 25 such constraints.

HIGH-STRUCTURE GUIDELINES

5. The instructor should assign one roadblock per student, and have each design a solution. The instructor should lead a discussion by going around the class and have each member share the problem and solution.

6. Given the members of the school community and the functions that are served on a matrix, the class as a whole will fill in the cells as follows:

   p = primary responsibility
   s = secondary responsibility
   o = no responsibility

The instructor should lead discussion throughout the activity.

LOW-STRUCTURE GUIDELINES

5. Working in groups of three, the list of constraints should be divided in thirds. Each group should develop a solution for each of its problems. Depending on time, the instructor should ask each group to present their proposed solutions.

6. Given the members of the school community and the functions that are served on a matrix, the group working in thirds will fill in the cells as follows:

   p = primary responsibility
   s = secondary responsibility
   o = no responsibility

The groups will then share and discuss their results.

RESOURCES:
1. Handout - "Role Playing Activity"
2. Handout - "Constraints, Roadblocks, and Problems"
3. Handout - "Role and Function Matrix"

ROLES AND FUNCTIONS OF SCHOOL PERSONNEL IN CAREER EDUCATION

SESSION FOURTEEN - CONTENT OUTLINE

1. Problems associated with planning and implementing career education:
   - a. personnel issues
   - b. philosophical issues
   - c. programmatic issues
   - d. fiscal issues
   - e. logistical issues
   - f. scheduling issues
   - g. authority/control/responsibility issues
   - h. community involvement issues
2. Identification and clarification of roles and functions:
   - a. board members
   - b. system-wide administration
   - c. building level administration
   - d. teachers
   - e. business representatives
   - f. parents
   - g. students

RESOURCE MATERIALS

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ROLE PLAYING ACTIVITY*

THE SETTING

The setting is a suburban school district that has decided to implement career education. Personnel in the system are not sure how to go about doing this, the nature of extensiveness of the program, or what the implications will be for:

- the ongoing school curriculum
- each individual subject area
- the teachers and supervisory personnel
- the budget
- the community - both reactions and utilization of their resources

A task force has been formulated to address this issue, and provide recommendations to the board of education. This is the first meeting of that task force. While everyone accepts the premise that career education, in some form and at some level, will be developed, the scope, nature, and delivery system leave much room for variation.

The long term objective for this task force is to provide a report for the implementation of career education that will address the issues of:

content - scope and sequence

delivery systems - curricular and programmatic

resources - personnel and other fiscal requirements

responsibility and authority - for decision-making implementation and authority

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*This role play was designed and developed by Dr. Lawrence Aronstein, Principal, Memorial School, Millis, Massachusetts, and is reproduced with his permission.

ROLE DESCRIPTION

Dr. Guidem Guidebook
Assistant Superintendent for Instruction

Below is your role description. Please study the interests of your role and the possible personality of the character. Use your best judgement and bring all of your creative thinking you can to your role.

You are aware of a need to infuse career education into the school system curriculum.

You are not sure of the need at the elementary level.

You are oriented to working with district-wide committees and have faith in grass roots development.

You are concerned about allocating too much money to this area of curriculum.

ROLE DESCRIPTION

Ms. Nina Numbergame
Math Coordinator

Below is your role description. Please study the interests of your role and the possible personality of the character. Use your best judgement and bring all of your creative thinking you can to your role.

You are under heavy pressure to teach for tests.

You feel career education should be handled by guidance people.

You do not have time to stop for career discussions.

You spend a great deal of time trying to teach skills to slow children.

You would be interested and open to learning more about how career education could be infused into high school mathematics.

ROLE DESCRIPTION

Mr. Philip Fileaway
Guidance Counselor

Below is your role description. Please study the interests of your role and the possible personality of the character. Use your best judgement and bring all your creative thinking you can to your role.

You are the unofficial guidance leader in your school.

You are considered innovative and concerned.

You are aware that guidance counselors cannot do all there needs to be done in career guidance.

You want to interrelate with teachers and curriculum but seek help on how to do this.

You are working to eliminate the stigma attached to not being among the college bound.

ROLE DESCRIPTION

Mr. Terrance Testitube
Science Coordinator

Below is your role description. Please study the interests of your role and the possible personality of the character. Use your best judgement and bring all of your creative thinking you can to your role.

You are unsure of how career education can fit into your school's science curriculum.

You are under pressures of examinations and following state syllabus.

You are working with rigid curriculum guidelines.

You have a cooperative staff of teachers who would be concerned about how to infuse career education with "the circulating system of the earthworm."

You realize career education is needed, but feel it is a guidance function.

ROLE DESCRIPTION

Ms. Lucy Lastinline
Assistant Principal

Below is your role description. Please study the interests of your role and the possible personality of the character. Use your best judgement and bring all of your creative thinking you can to your role.

You are involved with a guidance role as a disciplinarian in your school.

You are concerned with the lack of goal seeking on the part of the children you work with.

You would like to work with teachers in the curriculum area, but this has not been available to you.

You believe strongly in a career education program for all students.

ROLE DESCRIPTION

Dr. Tidy Moneylock
Assistant Superintendent for Business

Below is your role description. Please study the interests of your role and the possible personality of the character. Use your best judgement and bring all of your creative thinking you can to your role.

You are working in a high tax district. Your budget must be tight.

Federal funding in career education is difficult to get.

You feel career education is specifically a high school guidance function related to college vocational options.

You are unaware of the underlying basic educational requirements for a career education K-12 program.

ROLE DESCRIPTION

Dr. Arnold Wiggley
Superintendent of Schools

Below is your role description. Please study the interests of your role and the possible personality of the character. Use your best judgement and bring all of your creative thinking you can to your role.

You want to do something with career education in your district.

You are not sure of how your Board feels about spending money in this area.

You are unsure of how to approach delivering a good program.

You have not made a curriculum decision in the past five years. You rely strongly on your Assistant Superintendent for instruction.

ROLE DESCRIPTION

Mrs. Toby Tellitall
P. T. A. President

Below is your role description. Please study the interests of your role and the possible personality of the character. Use your best judgement and bring all of your creative thinking you can to your role.

You are concerned for the need of a career education program in schools.

You want to help the teachers and administration.

You are willing to serve as a liaison for community resources.

You are very supportive of the schools and the curriculum.

ROLE DESCRIPTION

Ms. Tanya Topofit
Principal

Below is your role description. Please study the interests of your role and the possible personality of the character. Use your best judgement and bring all of your creative thinking you can to your role.

You are very much involved with curriculum development in your building.

You meet regularly with your department chairman to discuss the program.

You are on several district-wide curriculum committees.

You see the need for infusing career education into the curriculum.

ROLE DESCRIPTION

Ms. Lola Littlepup
Primary Elementary Teacher

Below is your role description. Please study the interests of your role and the possible personality of the character. Use your best judgement and bring all of your creative thinking you can to your role.

You teach careers through your science studies program and have for ten years.

You cannot understand the difference between a career education program and the everyday curriculum you now teach.

You are in favor of developing favorable attitudes and values in your children.

You would be willing to work on helping to develop a career education program.

ROLE DESCRIPTION

Mr. Ben Buggerband
School Board Member

Below is your role description. Please study the interests of your role and the possible personality of the character. Use your best judgement and bring all of your creative thinking you can to your role.

You are concerned about the large number of high school dropouts.

You are concerned about the public complaints about high school students who graduate without career direction.

You are in favor of a career education program.

You cannot fully understand why career education is needed below junior high school.

BOARD MEMBER CONSTRAINTS, ROADBLOCKS, AND PROBLEMS ASSOCIATED WITH IMPLEMENTING A K-12 CAREER EDUCATION PROGRAM

PROBLEM	POSSIBLE SOLUTION
1. There are too many programs already.	
2. What is it going to cost?	
3. Will it meet teacher resistance?	
4. Aren't we already doing it?	
5. Are we adding just another staff member?	
6. Will it interfere with existing programs?	
7. Parents are responsible for telling their children about the world of work.	
8. It's not practical.	
9. There will be transportation problems with all those field trips.	

DISTRICT-WIDE CONSTRAINTS, ROADBLOCKS, AND PROBLEMS ASSOCIATED WITH IMPLEMENTING A K-12 CAREER EDUCATION PROGRAM

PROBLEM	POSSIBLE SOLUTION
1. How much will it cost to implement?	
2. What other resources are available?	
3. To what account will the program be authorized?	
4. What are the philosophy and goals?	
5. How does it fit into one overall program?	
6. What's already happened in other places?	
7. Is there criteria for selection of students into this program?	
8. What will be the position of the teacher's union?	
9. Will the Board buy it?	

SCHOOL-WIDE CONSTRAINTS, ROADBLOCKS, AND PROBLEMS ASSOCIATED WITH IMPLEMENTING A K-12 CAREER EDUCATION PROGRAM

PROBLEM	POSSIBLE SOLUTION
1. We must sell it to teachers.	
2. Will it be implemented across-the-board in all subject areas and all grade levels?	
3. We need planning time.	
4. We need materials.	
5. It needs to be budgeted.	
6. Who will coordinate it? Who will be responsible for the training?	
7. There are competing priorities.	
8. Can it be done in one course?	
9. There are scheduling problems in using community people.	
10. How do we move reluctant teachers?	
11. What is the commitment of the boss?	

TEACHER CONSTRAINTS, ROADBLOCKS, AND PROBLEMS ASSOCIATED WITH IMPLEMENTING A K-12 CAREER EDUCATION PROGRAM

PROBLEM	POSSIBLE SOLUTION
1. Is it part of the curriculum?	
2. Will it fit into a crowded curriculum?	
3. We need training.	
4. We need materials.	
5. We need a list of community resources.	
6. We need time to plan.	
7. How will we determine student interest?	
8. Will we get parental support and cooperation?	

BUSINESS LEADER CONSTRAINTS, ROADBLOCKS, AND PROBLEMS ASSOCIATED WITH IMPLEMENTING A K-12 CAREER EDUCATION PROGRAM

PROBLEM	POSSIBLE SOLUTION
1. Presently we are getting low types of students.	
2. We have problems with the discipline of workers.	
3. Today's teachers are unprepared to train workers.	
4. Will I be an effective resource person for the schools?	
5. We'll train our own workers.	
6. Kids today don't have good work values and habits.	
7. What specifically do you want me to do?	

PARENTAL CONSTRAINTS, ROADBLOCKS, AND PROBLEMS ASSOCIATED WITH IMPLEMENTING A K-12 CAREER EDUCATION PROGRAM

PROBLEM	POSSIBLE SOLUTION
1. Will there be a reduction of time for the academics and basics?	
2. How will this affect the tax rate?	
3. What is expected of us in terms of parental involvement?	
4. How will this affect preparation for college?	
5. Will our kids be locked into careers too early?	
6. How will teacher time be spent doing careers?	
7. Do teachers have the expertise to do this?	
8. What will the effect be on local jobs?	
9. Is there danger in visiting industries?	
10. Is there federal money available?	
11. What are the staffing needs?	
12. Will there be a time lag?	
13. Will more space be needed?	
14. How will it affect the "three r's"?	
15. What is the purpose?	

ROLE AND FUNCTION MATRIX

RESPONSIBILITIES FOR A CAREER EDUCATION PROGRAM

	Decision & Policy Making	Control (Budget)	Planning	Facilitating	Communicating	Quality Assurance	Implementing
HIGHER - Superintendent School Committee							
MIDDLE - INSTRUCTIONAL LEADERSHIP Principal Asst. Principal Subj. Supervisor							
IMPLEMENTOR - Teacher							
SUPPORTIVE STAFF Counselor Library/Media School Nurse Paraprofessional							
COMMUNITY - PARENTS Business/Industry Govt. Agencies Community Orgns.							
STUDENTS							

P = Primary Responsibility S = Secondary Responsibility 0 = No Responsibility

DEFINITIONS OF LEADERSHIP SKILLS

Decision Making/Policy Making: The determination that a concept is valid or a need is evident and a commitment to providing the necessary resources needed to develop a strategy for reaching desired outcomes.

Controlling: The acquisition and allocation of resources necessary to meet desired outcomes.

Planning: A process of developing progressive activities that begin with a basic need and result in attempting to reach a desired outcome.

Facilitating: Assistance in the providing of information, resources, and attention to necessary details that are brought to light through planning.

Communicating: The gathering and dissemination of information related to tasks that are brought about through planning.

Quality Assurance: Analysis and measurement of all elements that are part of a planned program directed toward achieving a desired outcome.

Implementing: The process of planning, adapting, performing, revising, and performing again on a cyclical basis. This cycle includes planning, testing, executing, and evaluating.

CHAPTER XII

PROJECT EVALUATION

In its simplest form Project FOCUS began as an inquiry into inservice career education for teachers. Our goal was to better understand the relationship between teacher learning characteristics, instructional approaches, and behavioral outcomes. The theory, too, was relatively simple: effective career education for teachers includes both cognitive and affective outcomes, and the ways to achieve those outcomes is to coordinate personality variables with environmental variables. The matching of these two types of variables results in higher scores. In the following sections of this synthesis we report the major conclusions and findings of the study.

A. CONCLUSIONS

1. The Project proved to be an effective vehicle for increasing educators' knowledge of and attitudes toward infusing career education into the school curriculum. Significant differences were found in both of these domains as a result of participating in the training program.

2. The Project provides evidence that the training program is a functional tool for staff development. That is, it can be used by instructors to effect the cognitive and affective changes described in the previous conclusion.

3. The Project is suitable for use as a staff development program. That is, the four instructors in the pilot test used approximately 85% of the program, which both maintained program integrity and allowed for individual and situational differences among the instructors and the individual needs of participants.

4. Educators enjoyed participating in the program. That is, the research provides evidence that they were both involved in the instructional process, and satisfied with that process during implementation. Formative evaluation data revealed that the participants engaged the instructional content and worked diligently toward achieving the objectives of the program.

5. The staff development training manual included two instructional styles: high and low-structure. Both the high and low-structure treatments were effective tools for achieving the cognitive and affective outcomes of the Project. That is, an instructor may use either treatment with a level of confidence that it will work with the program participants.

6. Teachers (program participants) can be divided into separate groups, based on their receptivity toward change and innovation. This is an effective decision-making criterion for assigning treatment (high and low-structure) to groups of participants.

7. It is better to match high receptive participants with a low-structure program and vice versa. When program participants are matched (high or low receptive) to training treatments (high or low-structure) their variability of involvement and satisfaction will decrease and they will tend to score higher on involvement and satisfaction scales.

8. When teacher receptivity and training treatments are matched (low receptive to high-structure and vice versa) participants show greater increases in their attitudes toward career education.

9. Project FOCUS is an effective program for training individuals for the implementation of career education. The program provides alternative training approaches that can be matched to both the orientation of the instructor and the learning styles of participants.

EVALUATION COMPONENTS AND INSTRUMENTS

There were three major components to the evaluation of this project and of the training manual. The first of these was a measure of the effectiveness of the staff development program. To accomplish this, a pre/post-test design was developed. These tests included both a cognitive instrument to measure the knowledge of the participants before and after the training program; as well as an affective instrument to measure changes in attitudes toward career education before and after the program. Both of these instruments are included in this chapter and are recommended for use as the basic evaluation instruments for the program.

The second major component of the evaluation assessed the satisfaction and involvement of the participants while the individual sessions were being conducted. This is a formative assessment, and may be used to modify the program and increase its viability for the participants. It also provides immediate instructor feedback regarding the reactions of the participants to each training session. The form for this process is called the "Session Reaction Form," and consists of 38 descriptive adjectives. Each adjective is scaled from 1 to 10, rating its level of satisfaction and involvement for the participants. The scale for the adjectives is also provided. In using this form, the scores for each word should be tabulated, and means established for each session. The project may be considered well received if the involvement and satisfaction scores fall in the fourth quadrant of a ten by ten matrix. That is, if the average for both involvement and satisfaction is five or above, the project is being well received. Scores that fall below this number in either category should be taken as a signal that the process is in need of review and some intervention would be appropriate. As such, this sensitive instrument provides essential feedback for the instructor. Copies of these instruments are included in the resources for this chapter.

The third component of the evaluation is designed for the program administrator, and provides *feedback from the instructor* regarding the program while it is being conducted. As such, this is another *formative* process. There are two types of instruments for this process. The first is a generic "Instructor Assessment Form." This form provides feedback regarding the success of each session as perceived by the staff development instructor. It should be completed after each session and reviewed by the program administrator. It, too serves as an immediate signal that particular modifications or intervention strategies may be needed. The second set of forms are specifically modeled to each of the training sessions. These are designed to assess the "fidelity" to the program. That is, by responding to these forms, the instructor provides information regarding the extent to which the program is being implemented according to the training manual. Deviations may or may not be important, depending upon the way and manner in which this manual is being used in a particular situation. However, this too may serve as a valuable tool to assure "quality control" for a number of instructors or settings where it is important that all the participants receive the same instruction.

The following pages of this chapter include all the instruments needed for evaluating the training program. Each instrument has been carefully developed, validated, and used in the field test of this training program. Individuals seeking greater detail regarding the development, validation, utilization, or data results obtained through these instruments are referred to in Volume III of this Final Report Series: *Theory and Research - Evaluation Results*.

RESOURCE MATERIALS

PRE/POST-TEST INSTRUMENT

PARTICIPANT COGNITIVE ASSESSMENT

1. Which of the following is not an appropriate outcome of an individual career infusion activity?

____ a. reinforcement of the academic subject.
____ b. increased student self-awareness.
____ c. acquisition of a saleable skill.
____ d. occupational awareness.
____ e. development of one of the elements of career education.

2. The best way to teach career education at the elementary school level is:

____ a. infusion into existing curricula.
____ b. a separate block of time each week, taught by the classroom teacher.
____ c. a separate block of time each week, taught by a career education specialist.
____ d. a separate course - like art or gym.
____ e. field trips to local places of employment.

3. Long term funding for career education should come from:

____ a. a budget item in the local school budget.
____ b. a budget item in the state funds for education.
____ c. a budget item in federal funds for education.
____ d. a re-allocation of resources in the existing school budget.
____ e. vocational education funds.

4. Career education is an educational movement designed primarily to serve:

____ a. potential dropouts.
____ b. all students.
____ c. students going into vocational programs.
____ d. students going into technical careers.
____ e. students going to college.

5. ____________ is a conscious effort, aimed at producing benefits for oneself and/or for onself and others.

____ a. career education.
____ b. work.
____ c. leisure.
____ d. volunteer activity.
____ e. counseling.

6. __________ is the totality of experiences through which one learns about and prepares to engage in work as part of his/her way of living.

____ a. career education.
____ b. work.
____ c. leisure.
____ d. volunteer activity.
____ e. counseling.

7. Unemployment for ______________________ is three times the national unemployment rate.

____ a. black Americans.
____ b. females.
____ c. minorities in general.
____ d. high school dropouts.
____ e. youth between 18 and 25.

8. Communicating, problem-solving, planning, and decision-making are examples of:

____ a. coping behaviors.
____ b. counseling strategies.
____ c. transferable skills.
____ d. elements of career education.
____ e. elements of career development.

9. The Dictionary of Occupational Titles (D.O.T.) classifies its job analyses into:

____ a. data, people, things.
____ b. data, things, situations.
____ c. occupational clusters, people, data.
____ d. people, things, level of abstraction.
____ e. level of abstraction, things, occupational cluster.

10. Which of the following is not part of a comprehensive career education program?

____ a. career awareness.
____ b. career exploration.
____ c. career analysis.
____ d. career preparation.
____ e. career development counseling.

11. Which is the least desirable approach for a career awareness program?

____ a. interest centers.
____ b. separate program.
____ c. infusion.
____ d. units of instruction.
____ e. separate course.

12.-21. Match each of the following activities (12-21) to the career education element it would best achieve. Note: An element may be used more than once.

____ 12. Decision-making through role playing.

____ 13. Values clarification related to work values.

____ 14. Occupational information game.

____ 15. Review of college catalogs to find specific programs.

a. self awareness.
b. career awareness.
c. appreciations and attitudes.
d. educational awareness.
e. economic awareness.
f. decision-making skills.
g. skill awareness and beginning competence.
h. employability skills.

____ 16. Interviewing people at their place of work.

____ 17. Establishing and running a company in your classroom.

____ 18. Building a section of a house in industrial arts.

____ 19. Studying the career of your favorite musician.

____ 20. Keeping a personal daily log of your activities, likes and dislikes.

____ 21. Learning how to repair automobiles.

22. Which of the following is not characteristic of Super's theory of vocational development?

____ a. vocational development is the process of matching people to jobs.
____ b. people differ in abilities, interests and personalities.
____ c. individuals are qualified for a number of occupations.
____ d. vocational development is comprised of a series of life stages.
____ e. vocational development is the implementation of a self concept.

23. Which of the following is not an occupational cluster?

____ a. manufacturing.
____ b. business and office.
____ c. personal services.
____ d. education.
____ e. construction.

24. In matching the school curriculum to the elements of career education:

____ a. each element should be matched to one subject area.
____ b. all elements should be matched to every subject area.
____ c. some career education should be infused at least once each day.
____ d. the natural flow of curriculum to elements should serve as the guideline.
____ e. a separate career education curriculum should be "overlaid" onto the school program.

25. Which of the following is not a guideline for developing career awareness infusion activities?

____ a. at least two career education elements should be developed in the activity.
____ b. information about at least one job or occupation should be included in each activity.
____ c. the activity should be a natural outgrowth of the unit under study.
____ d. the activity should include the materials needed for its successful implementation.
____ e. the activity should be developed from at least one objective in the ongoing curriculum.

26. Which of the following would not be an appropriate career awareness infusion activity?

____ a. a two-week unit on measurement in the math curriculum.
____ b. occupational crossword puzzles.
____ c. a six-week study of colleges offering specific programs of interest to the students.
____ d. a personal journal of likes and dislikes kept as part of the language arts program.
____ e. reading a book and writing a report about the career of a favorite personal hero.

27. A career awareness infusion activity should include all of the following except:

____ a. a mandatory field trip component.
____ b. a clearly stated objective.
____ c. a representation of at least two elements of career education.
____ d. a clear relationship to the ongoing educational program.
____ e. a student-centered activity.

28. Which of the following is not a phase of the role playing process?

____ a. warm up the group.
____ b. set the stage.
____ c. enact the role play.
____ d. evaluate the experience.
____ e. debrief the participants.

29. Which of the following is not a legitimate reason for conducting a role playing activity for career awareness?

____ a. provide relevant occupational information in a setting that approximates reality.
____ b. provide successful experience for the imaginative but academically poor student.
____ c. provide vicarious learning through audience observation.
____ d. develop social skills through direct participation and observation.
____ e. identify several solutions to a problem-solving situation through reenactments with different players.

30. Role playing in career awareness:

____ a. is the best way to transmit values about work.
____ b. provides an opportunity to personalize work roles and work situations.
____ c. is a good source of occupational information.
____ d. should be developed for all the career education elements.
____ e. should not be used because of its inefficiency and variability.

31. Which of the following is not true of career awareness activity centers?

____ a. encourage student self-learning.
____ b. may be set up as supplemental to the ongoing curriculum.
____ c. encourage flexible use of time.
____ d. require careful teacher monitoring while in use.
____ e. require careful teacher design and structuring in their development.

32. Which of the following is not a characteristic of a career awareness activity center?

____ a. provides for the use of a wide variety of materials, activities, and concepts.
____ b. increases the visual stimulation and excitement of a classroom.
____ c. increases the flow of students through various activities in the classroom.
____ d. increases the structure of the classroom setting for the students.
____ e. can be established in many different environmental settings.

33. Which of the following is the best organizer for career awareness activity centers?

____ a. curriculum content/skills.
____ b. career education elements.
____ c. career exploration experiences.
____ d. transferable skills.
____ e. all of the above.

34. Which of the following is an inappropriate guideline for developing activity centers?

____ a. all student activities should be carefully controlled and monitored through the instructions.
____ b. all student activities should be derived from one or more educational objectives.
____ c. all student activities should be introduced to the learner prior to independent study with them.
____ d. all student activities should be monitored through a student self evaluation and record-keeping system.
____ e. all student activities should utilize multiple kinds of processes to accommodate differences in individual learning styles.

35.-41. In questions 35 to 41 match the best community resource from the list, for each of the following career education objectives:

____ 35. Helping to establish career education policy.

____ 36. Identifying sites for field trips.

____ 37. Provide students with initial exploratory experiences

____ 38. Provide accurate job-specific information to students.

a. parent volunteers
b. Chamber of Commerce
c. Urban League
d. advisory committee
e. internships
f. shadowing programs
g. Information Resource Center
h. guest speakers
i. career mini-course

____ 39. Provide in-depth career exploration for students.

____ 40. Provide fiscal resources to support career education activities.

____ 41. Provide classroom support for career awareness infusion activities.

42. Which of the following is not true of a career awareness instructional unit?

____ a. addresses a broad concept or theme.
____ b. is keyed to one career education element.
____ c. runs usually from 2 - 6 weeks.
____ d. contains a number of activities.
____ e. has a major culminating experience.

43. Every career awareness instructional unit should accomplish goals related to:

____ a. the subject area and career education.
____ b. the subject area and occupational information.
____ c. occupational information and career education.
____ d. personal development and the subject area.
____ e. all of the above.

44. Each lesson or activity within a career awareness unit of instruction should contain:

____ a. clearly defined objective.
____ b. relationship to at least two elements of career education.
____ c. experiential activities.
____ d. an evaluation component.
____ e. all of the above.

45. In reviewing career education materials, which criteria must be included in the review?

____ a. objectives, activities, resources.
____ b. resources, activities, evaluation.
____ c. objectives, activities, packaging.
____ d. packaging, resources, evaluation.
____ e. objectives, activities, evaluation.

46. In linking a career awareness activity to its broader curricular perspective, which of the following possible linkages would not be appropriate?

____ a. subject area.
____ b. career education element.
____ c. ease of administration.
____ d. occupational cluster.
____ e. none of the above.

47.-50. Match the appropriate level of responsibility to the person for implementing a comprehensive career education program.

____ 47. Superintendent
____ 48. Principal
____ 49. Teacher
____ 50. Community/parents

a. policy making
b. budget control
c. planning
d. facilitating
e. communicating
f. quality assurance
g. implementing

ANSWER KEY

1. c
2. a
3. d
4. b
5. b
6. a
7. e
8. c
9. a
10. c
11. b
12. f
13. c
14. b
15. d
16. b
17. e
18. g
19. c
20. a
21. h
22. a
23. d
24. d
25. b
26. c
27. a
28. e
29. a
30. b
31. d
32. d
33. e
34. a
35. d
36. g
37. f
38. h
39. e
40. b
41. a
42. b
43. a
44. e
45. e
46. c
47. a
48. b
49. g
50. d

PRE/POST-TEST INSTRUMENT

PARTICIPANT AFFECTIVE ASSESSMENT

DIRECTIONS: READ EACH STATEMENT CAREFULLY AND DECIDE HOW YOU FEEL ABOUT IT. YOU ARE OFFERED FOUR POSSIBLE ANSWERS TO EACH STATEMENT. PLEASE READ EACH STATEMENT AND CIRCLE:

SA if you strongly agree with the statement.
A if on the whole you would tend to agree.
D if on the whole you would tend to disagree.
SD if you strongly disagree with the statement.

1. Education should have positive implications for career development. SA A D SD

2. The focus of the academic disciplines should be related to the career plans of each student. SA A D SD

3. School curricula should be oriented to relate to career development. SA A D SD

4. The community is an excellent resource to use in a career education program. SA A D SD

5. Education about careers should be integrated into the regular curriculum. SA A D SD

6. Occupational role playing can be an effective way for students to learn about careers. SA A D SD

7. The world of work should be an organizing center for the curriculum. SA A D SD

8. Education should deal with people centered activities. SA A D SD

9. Consideration should be given to the views of students in planning and evaluating career education programs. SA A D SD

10. The schools have the responsibility to help students develop career objectives. SA A D SD

11. Students should be knowledgeable about the world of work before leaving school. SA A D SD

12. The school curriculum should be related to the career goals of the students. SA A D SD

13. The interests of parents should be considered in developing the school curriculum. SA A D SD

SA if you strongly agree with the statement.
A if on the whole you would tend to agree.
D if on the whole you would tend to disagree.
SD if you strongly disagree with the statement.

*14. Students presently have sufficient orientation to the possibilities in the world of work to make sound career decisions. SA A D SD

15. A career education program should involve real life experiences. SA A D SD

16. "Hands on" experiences are essential to a good career education program. SA A D SD

*17. Teachers are well prepared to teach in career education programs. SA A D SD

*18 College and university teacher educators do an excellent job in preparing teachers to teach in career education programs. SA A D SD

19. For students to make realistic occupational decisions, they should have an opportunity to compare their abilities, interests and needs with the requirements of various types of occupations. SA A D SD

20. Students should be aware of the economic system and its implications for employment. SA A D SD

21. A major purpose of career education is to help young people discover their individual interests and abilities. SA A D SD

22. Commercially developed career oriented games may be considered as resource materials in career education. SA A D SD

23. Career education should be concerned with helping each student develop a positive self image. SA A D SD

24. Experiences in career education should allow students to evaluate their interests and abilities. SA A D SD

25. Educational systems should be concerned with the placement of some terminating students into entry level jobs. SA A D SD

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*Negatively Scored Item

SA if you strongly agree with the statement.
A if on the whole you would tend to agree.
D if on the whole you would tend to disagree.
SD if you strongly disagree with the statement.

26. Career education should help students develop positive attitudes toward work. SA A D SD

27. It is important to involve parents in planning career education. SA A D SD

28. Follow-up studies of former students should be an important part of any career education program. SA A D SD

29. A career education program should enhance the social skills of the students. SA A D SD

FORMATIVE ASSESSMENT

PARTICIPANT SESSION REACTION FORM

Circle the one word that most clearly describes your feeling about this session.

1. amused
2. angry
3. annoyed
4. anticipatory
5. apprehensive
6. bored
7. calm
8. complacent
9. concerned
10. content
11. depressed
12. despairing
13. detached
14. disappointed
15. disturbed
16. ecstatic
17. elated
18. exasperated
19. excited
20. glad
21. helpless
22. indifferent
23. indignant
24. inquisitive
25. interested
26. involved
27. joyful
28. liberated
29. lonely
30. meditative
31. neutral
32. satisfied
33. serene
34. somber
35. still
36. terrified
37. tranquil
38. uneasy

SCALE FOR PARTICIPANT SESSION REACTION FORM

Adj. No.	Involvement[1]	Satisfaction[1]	Adj. No.	Involvement[1]	Satisfaction[1]
1	6	7	20	7	7
2	9	1	21	3	1
3	7	3	22	1	3
4	8	6	23	9	2
5	7	2	24	7	6
6	0	3	25	6	6
7	4	6	26	9	7
8	2	4	27	9	9
9	6	4	28	2	9
10	4	6	29	2	1
11	1	1	30	2	6
12	9	0	31	5	5
13	1	4	32	6	7
14	6	2	33	2	8
15	6	2	34	3	2
16	10	10	35	1	6
17	10	9	36	10	0
18	8	2	37	3	7
19	8	8	38	4	3

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[1] For purposes of this evaluation, the elation-depression dimension (Willis and Allen, 1978:52-58) was treated as a satisfaction-dissatisfaction dimension, while the involvement-uninvolvement dimension was retained. (Reference - Willis, George (Editor) *Qualification Evaluation: Concepts and Cases in Curriculum Criticism*. Berkeley: McCutchan Publishing Corporation, 1978.)

GENERIC FORMATIVE ASSESSMENT

INSTRUCTOR ASSESSMENT FORM

Name ______________________ Location ______________________

Session Date ______________________ Session Title ______________________

Time __________ No. of Students ______ Structure (High or Low) __________

VD Very Dissatisfied D Dissatisfied
N Neutral G Good
E Excellent

1.	What was your general reaction to this session?	VD	D	N	G	E
2.	What do you think was the student's general reaction to this session?	VD	D	N	G	E

VP Very Poorly P Poorly
A Adequately W Well
EW Extraordinarily Well

3.	How well did the instructional guide and resources provide what you needed for the session?	VP	P	A	W	EW
A.	How well did the directions provide the information you needed?	VP	P	A	W	EW
B.	How adequately did the resources provide the information needed?	VP	P	A	W	EW
C.	Were the time allocations appropriate?	VP	P	A	W	EW
D.	How well did the session flow from activity to activity?	VP	P	A	W	EW
E.	Did the activity provide for appropriate student participation?	VP	P	A	W	EW
F.	How well did the activities contribute to the achievement of the session objectives?	VP	P	A	W	EW
G.	How well were the course session objectives achieved?	VP	P	A	W	EW

4. Specific suggestions or recommendations for improving this session.

____

____

SESSION-SPECIFIC, FORMATIVE, INSTRUCTION ASSESSMENT FORM

CAREER EDUCATION: AN INTRODUCTION

TEACHING ANALYSIS GUIDE

HIGH STRUCTURE

	Adequate	Minimal	Not At All	Not Necessary
Phase One				
1. Did the teacher orient the students to the Astronaut Space Capsule Form; i.e., read the directions, state procedures, respond to, clarify activity content, goals, etc.	___	___	___	___
2. Were the students individually asked to construct "space capsules"?	___	___	___	___
3. Did the teacher lead the discussion after the test flights were completed?	___	___	___	___
Phase Two				
4. Did the teacher lead the students through the work sheet - item by item?	___	___	___	___
5. Did the teacher explain how the space capsule activity infused career education?	___	___	___	___
Phase Three				
6. Did the teacher provide handouts on the rationale and basic principles of career education?	___	___	___	___
7. Did the teacher use transparencies to present ideas to the group?	___	___	___	___
8. Did the teacher lead the group in a discussion of the rationale and basic principles of career education?	___	___	___	___

SESSION-SPECIFIC, FORMATIVE, INSTRUCTOR ASSESSENT FORM

CAREER EDUCATION: AN INTRODUCTION

TEACHING ANALYSIS GUIDE

LOW STRUCTURE

	Adequate	Minimal	Not At All	Not Necessary
Phase One				
1. Did the teacher distribute the Astronaut Space Capsule Forms and arrange the students into groups?	___	___	___	___
2. Did the teacher negotiate with students the procedure for the activity?	___	___	___	___
3. Did the students discuss the activity?	___	___	___	___
4. Did the teacher facilitate the group process by answering questions, assisting in the organizing of groups, etc.?	___	___	___	___
5. Did each group do the activity?	___	___	___	___
6. Did each group test their capsules?	___	___	___	___
Phase Two				
8. Did each group do one worksheet collectively?	___	___	___	___
9. Did the groups share the results of their worksheets with each other?	___	___	___	___
10. Did the groups collectively discuss the infusion of career education in the Astronaut Space Capsule activity?	___	___	___	___
11. Did the teacher facilitate the group process by serving as a resource person, encouraging individuals to participate, or other supportive teaching moves?	___	___	___	___

	Adequate	Minimal	Not At All	Not Necessary
Phase Three				
12. Did the teacher distribute handouts to the groups?	___	___	___	___
13. Did the groups discuss the rationale and basic principles of prior education?	___	___	___	___
14. Did the groups collectively discuss their findings?	___	___	___	___
15. Did the teacher serve as a resource person?	___	___	___	___

SESSION-SPECIFIC, FORMATIVE, INSTRUCTOR ASSESSMENT FORM

CAREER EDUCATION: AN INTRODUCTION - PART 2

TEACHING ANALYSIS GUIDE

HIGH STRUCTURE

Phase One	Adequate	Minimal	Not At All	Not Necessary
1. Did the teacher distribute the transferable skills handout to each student?	___	___	___	___
2. Did the teacher lead a discussion of the meaning of transferable skills?	___	___	___	___
3. Did the teacher clarify meanings?	___	___	___	___
Phase Two				
4. Did the teacher distribute the "Life Planning Laboratory" handout?	___	___	___	___
5. Did the students complete activity II - their self description?	___	___	___	___
6. Did the teacher have each person share his/her activity II with the group?	___	___	___	___
7. Did others give students feedback?	___	___	___	___
Phase Three				
8. Did the teacher lead and coordinate a discussion of the relationships between the self descriptions and the transferable skills handouts?	___	___	___	___
9. Did the teacher get individual students to discuss their transferable skills?	___	___	___	___
Phase Four				
10. Did the students complete the "What Can I Do" activity sheet?	___	___	___	___

	Adequate	Minimal	Not At All	Not Necessary
11. Did the teacher guide a discussion of the "What Can I Do" situation?	___	___	___	___
12. Did the teacher encourage individual student reactions?	___	___	___	___

Phase Five

	Adequate	Minimal	Not At All	Not Necessary
13. Did the teacher lead a discussion of the need for schools to address the issue of transferable skills and career development?	___	___	___	___

SESSION-SPECIFIC, FORMATIVE, INSTRUCTOR ASSESSMENT FORM

CAREER EDUCATION: AN INTRODUCTION - PART 2

TEACHING ANALYSIS GUIDE

LOW STRUCTURE

Phase One	Adequate	Minimal	Not At All	Not Necessary
1. Did the teacher negotiate the arrangements for small working groups?	___	___	___	___
2. Did the teacher distribute the handouts and request that students relate the transferable skills to their personal experiences?	___	___	___	___
3. Did the students conduct small group discussion on these topics?	___	___	___	___
Phase Two				
4. Did the students write a brief anecdote about an experience that they had that made them proud?	___	___	___	___
5. Did the students relate their experiences to the group?	___	___	___	___
6. Did the group analyze the anecdote in terms of transferable skills?	___	___	___	___
Phase Three				
7. Did each member of the small groups complete the "What Can I Do" activity?	___	___	___	___
8. Were students able to share the personnel information from their activity sheets?	___	___	___	___
9. Where the teacher and students able to extend their discussion to school issues related to transferable skills and career development?	___	___	___	___

SESSION-SPECIFIC, FORMATIVE, INSTRUCTOR ASSESSMENT FORM

THE EIGHT ELEMENTS OF CAREER EDUCATION AND CAREER DEVELOPMENT THEORY

TEACHING ANALYSIS GUIDE

HIGH STRUCTURE

		Adequate	Minimal	Not At All	Not Necessary
Phase One					
1.	Were the students able to write a definition for all eight elements of career education?	___	___	___	___
2.	Did the teacher provide definitions for each of the eight elements?	___	___	___	___
3.	Was there a discussion of the eight elements of career education?	___	___	___	___
4.	Did the instructor analyze ways in which the eight elements were infused in specific career education activities?	___	___	___	___
Phase Two					
5.	Did the instructor present a conceptual model of the infusion process?	___	___	___	___
6.	Did the students discuss the model?	___	___	___	___
Phase Three					
7.	Did the teacher present Super's ten elements of a theory of Vocational Development?	___	___	___	___
8.	Did the students discuss the ten elements?	___	___	___	___
Phase Four					
9.	Did they distribute materials on occupational clusters?	___	___	___	___
10.	Did the students discuss the advantages and disadvantages of each for organizing school curricula?	___	___	___	___
11.	Did the instructor list the pluses and minuses of each on a wall chart or blackboard?	___	___	___	___

SESSION-SPECIFIC, FORMATIVE, INSTRUCTOR ASSESSMENT FORM

THE EIGHT ELEMENTS OF CAREER EDUCATION AND CAREER DEVELOPMENT THEORY

TEACHING ANALYSIS GUIDE

LOW STRUCTURE

	Adequate	Minimal	Not At All	Not Necessary
Phase One				
1. Did the teacher negotiate the establishment of small groups with the students?	___	___	___	___
2. Were the students able to define the eight elements in their small groups?	___	___	___	___
3. Did the groups post their definitions on the walls and discuss them?	___	___	___	___
4. Did the class establish a list of definitions for the eight elements?	___	___	___	___
Phase Two				
5. Were the students able to analyze which elements were infused in the activities?	___	___	___	___
6. Did the teacher request that the students discuss their conception of the infusion process?	___	___	___	___
Phase Three				
7. Were the students able to relate their personal experiences to Super's 10 Elements of A Theory of Vocational Development?	___	___	___	___
8. Did the teacher encourage active listening by other students?	___	___	___	___
Phase Four				
9. Were students able to match clusters and titles?	___	___	___	___
10. Were the students able to discuss the advantages and disadvantages of each cluster for organizing school curucula?	___	___	___	___

SESSION-SPECIFIC, FORMATIVE, INSTRUCTOR ASSESSMENT FORM

MAPPING SCHOOL CURRICULUM AND CAREER EDUCATION

TEACHING ANALYSIS GUIDE

HIGH STRUCTURE

	Adequate	Minimal	Not At All	Not Necessary
Phase One				
1. Were students able to analyze a curriculum activity and identify in writing the knowledge, skills and attitudes implicit in it?	___	___	___	___
2. Did the teacher elicit student examples from their analysis of curriculum - activities?	___	___	___	___
3. Did the instructor record the student responses on the Grid Sheet?	___	___	___	___
4. Did the students record their responses on their Grid Sheet?	___	___	___	___
5. Did the teacher review the elements of career education and record them on the Grid Sheet?	___	___	___	___
6. Did the students record them on their Grid Sheets?	___	___	___	___
7. Was the teacher able to relate curriculum goals to the elements of career education?	___	___	___	___
8. Were students able to relate curriculum goals to the elements of career education?	___	___	___	___
Phase Two				
9. Did the teacher use the "Career Activity" handout to explain how career education could be incorporated into the school curriculum?	___	___	___	___

		Adequate	Minimal	Not At All	Not Necessary
10.	Were the students able to discuss the concept of technology and the school curriculum?	___	___	___	___
11.	Were the students able to discuss problems and issues of integrating career education and subject areas of the school curriculum?	___	___	___	___
12.	Did the students describe in writing a curriculum activity and the elements of career education in it?	___	___	___	___

SESSION-SPECIFIC, FORMATIVE, INSTRUCTOR ASSESSMENT FORM

MAPPING SCHOOL CURRICULUM AND CAREER EDUCATION

TEACHING ANALYSIS GUIDE

LOW STRUCTURE

	Adequate	Minimal	Not At All	Not Necessary
Phase One				
1. Were the students organized into small groups?	___	___	___	___
2. Did the students analyze activities from their textbooks to determine the educational goals?	___	___	___	___
3. Did the teacher explain the concepts and organization of the Grid Sheet?	___	___	___	___
4. Did the teacher distribute the handouts?	___	___	___	___
5. Did the students complete the Grid Sheet in small groups?	___	___	___	___
6. Did the small groups share their findings with the class collectively?	___	___	___	___
Phase Two				
7. Did students explore, in a large group, ways in which the elements of career education might be infused into the school curriculum?	___	___	___	___
8. Did the students explore, in small groups, ways in which the elements of career education could be infused into activities of the school curriculum?	___	___	___	___
9. Did the teacher act as a resource to the group?	___	___	___	___
10. Did the teacher facilitate participation by different group members?	___	___	___	___

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	Adequate	Minimal	Not At All	Not Necessary
Phase Three				
11. Did individuals select a curriculum activity and write ways in which career education could be infused in them?	___	___	___	___
12. Were individuals able to share them in the large group?	___	___	___	___
13. Were students able to discuss problems and issues of integrating school curriculum?	___	___	___	___

SESSION-SPECIFIC, FORMATIVE, INSTRUCTOR ASSESSMENT FORM

INFUSING CAREER EDUCATION INTO ACADEMIC SUBJECTS

TEACHING ANALYSIS GUIDE

HIGH STRUCTURE

Phase One		Yes	To Some Extent	No	Not Applicable
1.	Did the teacher organize the class into small groups?	___	___	___	___
2.	Did the teacher distribute the "Ship Wreck" activity and explain the procedures to the group?	___	___	___	___
3.	Did the groups report out their results for Steps 3 and 4?	___	___	___	___
4.	Did the teacher record the results on the chalkboard?	___	___	___	___
5.	Did the small groups choose a home-site and tasks for survival?	___	___	___	___
6.	Were students able to describe their life styles on the island?	___	___	___	___
7.	Were students able to discuss similarities and differences between life styles on the island and their homes?	___	___	___	___
8.	Were students able to identify elements of career education in the activities?	___	___	___	___
Phase Two					
9.	Did the students complete the "My Values-Selecting Alternatives" handouts?	___	___	___	___
10.	Were students able to identify the elements of career education?	___	___	___	___
11.	Did the teacher elicit reactions from the students?	___	___	___	___

Phase Three	Yes	To Some Extent	No	Not Applicable
12. Did the students discuss the similarities and differences between the two activities?	___	___	___	___
13. Did the students construct guidelines for infusing career education into the ongoing curriculum?	___	___	___	___
14. Did the students analyze new career education activities using the master guidelines as the criteria?	___	___	___	___

SESSION-SPECIFIC, FORMATIVE, INSTRUCTOR ASSESSMENT FORM

INFUSING CARTEER EDUCATION INTO ACADEMIC SUBJECTS

TEACHING ANALYSIS GUIDE

LOW STRUCTURE

		Yes	To Some Extent	No	Not Applicable
Phase One					
1.	Did the class form two groups?	___	___	___	___
2.	Did each group complete a career education infusion activity?	___	___	___	___
3.	Did each group complete additional activities?	___	___	___	___
4.	Were the two groups able to manage the activities independently and productively?	___	___	___	___
5.	Were the students able to express their feelings about the activities?	___	___	___	___
Phase Two					
6.	Were two new groups formed to develop guidelines for infusing career education?	___	___	___	___
7.	Did each group develop separate guidelines for infusing career education into the curriculum?	___	___	___	___
8.	Did the two groups work together as a group to formulate one common set of guidelines?	___	___	___	___
9.	Did the members of the class review the handout "Guidelines for Developing Infusion Activities"?	___	___	___	___
10.	Did the class form small groups of three?	___	___	___	___
11.	Did each group develop at least one infusion activity?	___	___	___	___
12.	Did the small groups share their activities with others?	___	___	___	___

SESSION-SPECIFIC, FORMATIVE, INSTRUCTOR ASSESSMENT FORM

ROLE PLAYING TECHNIQUES IN CAREER EDUCATION

TEACHING ANALYSIS GUIDE

HIGH STRUCTURE

Phase One	Yes	To Some Extent	No	Not Applicable
1. Did the teacher discuss with the class the following:				
a. Use of role playing activity?	___	___	___	___
b. Steps in role playing?	___	___	___	___
c. The educational value of role playing?	___	___	___	___
2. Were the role playing handouts used as references for details on role playing and specific examples of applications to career education?	___	___	___	___
Phase Two				
3. Did the teacher guide the students through the following role playing activities?				
a. Role Play I - Self Awareness	___	___	___	___
b. Role Play II - Attitudes, Appreciation, and Decision-Making	___	___	___	___
c. Role Play III - Career Awareness	___	___	___	___
d. Role Play IV - Employable Skills	___	___	___	___
e. Role Play V - Economic Awareness	___	___	___	___
4. Did the teacher guide the group in a discussion of the value of each activity?	___	___	___	___
Phase Three				
5. Did each student design a role playing activity?	___	___	___	___
6. Did the group share their activities?	___	___	___	___

SESSION-SPECIFIC, FORMATIVE, INSTRUCTOR ASSESSMENT FORM

ROLE PLAYING TECHNIQUES IN CAREER EDUCATION

TEACHING ANALYSIS GUIDE

LOW STRUCTURE

	Yes	To Some Extent	No	Not Applicable
Phase One				
1. Did the teacher distribute the role playing handouts to members of the group?				
2. Did the teacher direct their attention to the use of role playing, the educational value, and the steps in role playing activities?				
3. Did the group read the materials?				
Phase Two				
4. Did the teacher form 3-4 small groups?				
5. Did the small groups conduct independent role playing sessions using the activity cards?				
6. Did the small groups discuss their experiences?				
Phase Three				
7. Did the groups design and write a career education related role playing activity?				
8. Did the groups share their activity with other groups?				

SESSION-SPECIFIC, FORMATIVE, INSTRUCTOR ASSESSMENT FORM

DEVELOPING CAREER EDUCATION ACTIVITY CENTERS

TEACHING ANALYSIS GUIDE

HIGH STRUCTURE

	Yes	To Some Extent	No	Not Applicable
Phase One				
1. Did the teacher introduce the concept of Learning Experiences using transparencies?	___	___	___	___
2. Did the teacher introduce the concept of Learning Centers using handouts?	___	___	___	___
3. Did the teacher guide a discussion of Learning Centers and Organizing Career Education Activities?	___	___	___	___
Phase Two				
4. Did the teacher hand out the guidelines for the development and use of activity learning centers, "Activity-Centered Learning: How and Why"?	___	___	___	___
5. Did the students read and discuss the handout?	___	___	___	___
Phase Three				
6. Did the teacher guide the class in the designing of a career education activity center?	___	___	___	___
7. Did the students and teacher view their work?	___	___	___	___

SESSION-SPECIFIC, FORMATIVE, INSTRUCTOR ASSESSMENT FORM

DEVELOPING CAREER EDUCATION ACTIVITY CENTERS

TEACHING ANALYSIS GUIDE

LOW STRUCTURE

	Yes	To Some Extent	No	Not Applicable
Phase One				
1. Did the teacher form small groups?	___	___	___	___
2. Did the students review handouts on Learning Experiencess and Learning Centers in small groups?	___	___	___	___
3. Did the small groups formulate ways to utilize learning centers to promote career education?	___	___	___	___
4. Did the groups share their conclusions?	___	___	___	___
Phase Two				
5. Did the class formulate a composite list including a-d from the guide?	___	___	___	___
6. Did the teacher form four groups to develop items a-d from the guide?	___	___	___	___
7. Did the four groups develop activity centers for each purpose stated in the guideline?	___	___	___	___
8. Did each group report the results of their "design" sessions?	___	___	___	___

SESSION-SPECIFIC, FORMATIVE, INSTRUCTOR ASSSESSMENT FORM

USING COMMUNITY RESOURCES FOR CAREER EDUCATION

TEACHING ANALYSIS GUIDE

HIGH STRUCTURE

	Yes	To Some Extent	No	Not Applicable
Phase One				
1. Did the instructor present alternative approaches to using community resources?	___	___	___	___
2. Did the gruop select one for development?	___	___	___	___
Phase Two				
3. Did the group outline guidelines for developing an exemplary program for using community resources?	___	___	___	___
4. Did the group describe a program using the exemplary guidelines?	___	___	___	___
Phase Three				
5. Did the group review and summarize its experiences?	___	___	___	___

SESSION-SPECIFIC, FORMATIVE, INSTRUCTOR ASSESSMENT FORM

USING COMMUNITY RESOURCES FOR CAREER EDUCATION

TEACHING ANALYSIS GUIDE

LOW STRUCTURE

	Yes	To Some Extent	No	Not Applicable
Phase One				
1. Did the teacher guide the group in a discussion of several approaches to using community resources?	___	___	___	___
2. Did the teacher form small groups (3 students) and have the groups choose community resource approaches?	___	___	___	___
Phase Two				
3. Did each group formulate guidelines for using community resources in career education?	___	___	___	___
4. Did the group design a program description by using program guidelines?	___	___	___	___
Phase Three				
5. Did the teacher assign the homework assignment for individual approaches?	___	___	___	___

SESSION-SPECIFIC, FORMATIVE, INSTRUCTOR ASSESSMENT FORM

DESIGNING AN INSTRUCTIONAL CAREER EDUCATION UNIT

TEACHING ANALYSIS GUIDE

HIGH STRUCTURE

Phase One	Yes	To Some Extent	No	Not Applicable
1. Did the teacher distribute copies of the handout - Instructional Units to the class?	___	___	___	___
2. Did the class review the units?	___	___	___	___
3. Did the teacher solicit student observations on the components of the instructional units?	___	___	___	___
4. Did the teacher record student observations on the units?	___	___	___	___
5. Did the class discuss the instructional design of each unit?	___	___	___	___
Phase Two				
6. Did the teacher and students repeat steps 1-6 with a second unit?	___	___	___	___
7. Did the teacher add additional student observations and make other modifications of the list of components?	___	___	___	___
8. Did the teacher introduce the "Instructional Unit Assessment Form"?	___	___	___	___
9. Did students point out the similarities and differences between the student list and "Assessment Form"?	___	___	___	___
Phase Three				
10. Did the students compare the "Guidelines" form to the student list on the blackboard?	___	___	___	___
11. Did the students make modifications in their list by adding new design components to it?	___	___	___	___
12. Did the students agree on a final revision of their guidelines for designing instructional units?	___	___	___	___

SESSION-SPECIFIC, FORMATIVE, INSTRUCTOR ASSESSMENT FORM

DESIGNING AN INSTRUCTIONAL CAREER EDUCATION UNIT

TEACHING ANALYSIS GUIDE

LOW STRUCTURE

	Yes	To Some Extent	No	Not Applicable
Phase One				
1. Did the teacher form small groups?	___	___	___	___
2. Did the groups study the instructional units from the handouts?	___	___	___	___
3. Did each team evaluate each unit using the Instructional Unit Assessment Form?				
a. Unit #1	___	___	___	___
b. Unit #2	___	___	___	___
c. Unit #3	___	___	___	___
4. Did the groups share their findings?	___	___	___	___
Phase Two				
5. Did the new groups develop guidelines for constructing career education instructional units?	___	___	___	___
6. Did the group incorporate their guidelines with the handout?	___	___	___	___
7. Did the group discuss the guidelines?	___	___	___	___
8. Was the group able to develop consensus for one master guidelines form?	___	___	___	___
Phase Three				
9. Did the groups develop the outlines and activities for one career education instructional unit?	___	___	___	___
10. Did each group report the results back to the class for their reactions?	___	___	___	___

SESSION-SPECIFIC, FORMATIVE, INSTRUCTOR ASSESSMENT FORM

EVALUATING CAREER EDUCATION MATERIALS

TEACHING ANALYSIS GUIDE

HIGH STRUCTURE

Phase One	Yes	To Some Extent	No	Not Applicable
1. Did teacher and students discuss the need for evaluating career education materials?	___	___	___	___
2. Did the teacher guide the students through an analysis of the components of evaluation instruments?	___	___	___	___
3. Did the students make comments and/or ask questions about evaluation and instruments?	___	___	___	___
Phase Two				
4. Did the teacher explain the procedure for the analysis of career education materials?	___	___	___	___
5. Did the students analyze materials using the evaluation instruments?	___	___	___	___
6. Did the students consider modifications in the instruments?	___	___	___	___
7. Did the students identify criteria for judging the adequacy of the materials?	___	___	___	___
Phase Three				
8. Did the teacher form small groups for analyzing career education materials?	___	___	___	___
9. Did the groups analyze materials?	___	___	___	___
10. Did the groups share their findings?	___	___	___	___
11. Did the students speculate on the "state-of-the-art" in developing career education materials?	___	___	___	___

SESSION-SPECIFIC, FORMATIVE, INSTRUCTOR ASSESSMENT FORM

EVALUATING CAREER EDUCATION MATERIALS

TEACHING ANALYSIS GUIDE

LOW STRUCTURE

	Yes	To Some Extent	No	Not Applicable
Phase One				
1. Did the students discuss the need for evaluating career education materials?	___	___	___	___
2. Did the teacher record student observations?	___	___	___	___
3. Did the students review the two evaluation instruments?	___	___	___	___
4. Did the group select and revise one of the instruments?	___	___	___	___
Phase Two				
5. Did the students work as pairs to analyze career education materials?	___	___	___	___
6. Did each pair of students identify criteria for evaluating materials?	___	___	___	___
7. Did the students revise their instruments as a result of preliminary evaluation activity?	___	___	___	___
8. Did the students revise their criteria for judging the adequacy of materials?	___	___	___	___
Phase Three				
9. Did the students evaluate career education materials?	___	___	___	___
10. Did students share their findings with one another?	___	___	___	___
11. Did the students reflect on their evaluation experiences?	___	___	___	___
12. Did they relate their findings to the "state-of-the-art" in career education materials?	___	___	___	___